BRITAIN'S LEADING MAGAZINE DEVOTED TO THE AMSTRAD CPC 464, 664 AND 6128

No. 27 DECEMBER 1987 £1.25

NOT an official Amstrad publication!!

AMSTRAD ACTION

THE MOULD-BREAKING MAGAZINE FROM FUTURE PUBLISHING

PLAY

Red L.E.D. – Mastergame



PROGRAM

Video trickery type-in



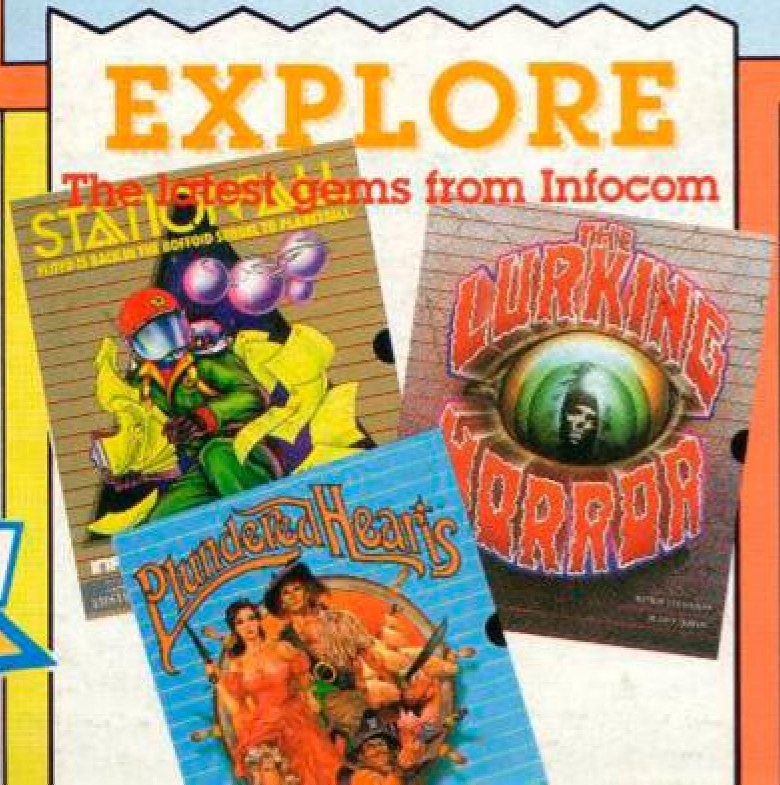
TUNE-IN

Teletext, Ceefax and Oracle on the CPC



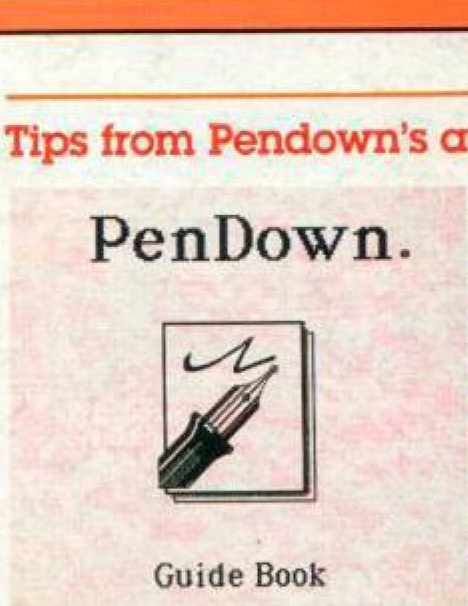
EXPLORE

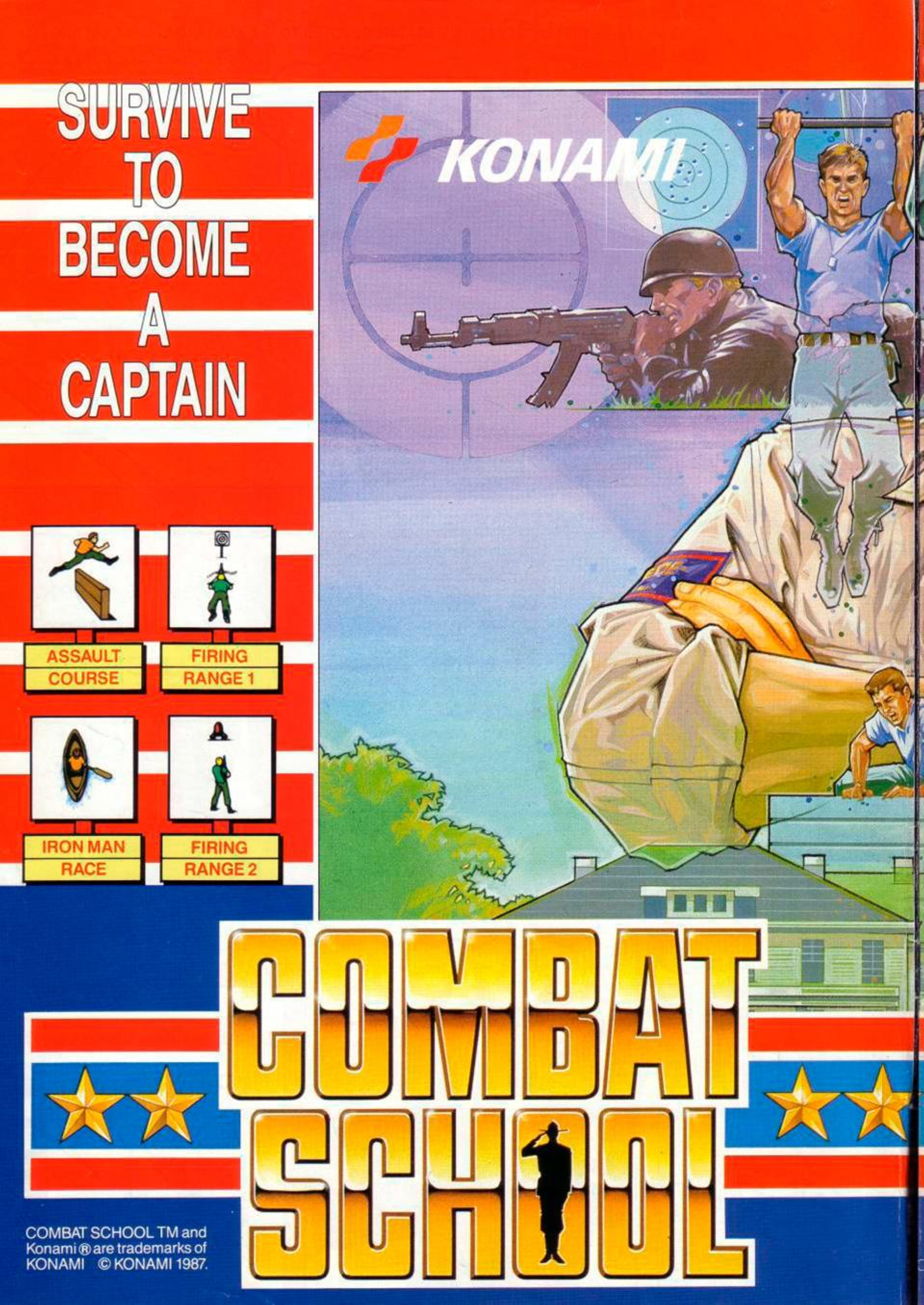
The latest gems from Infocom

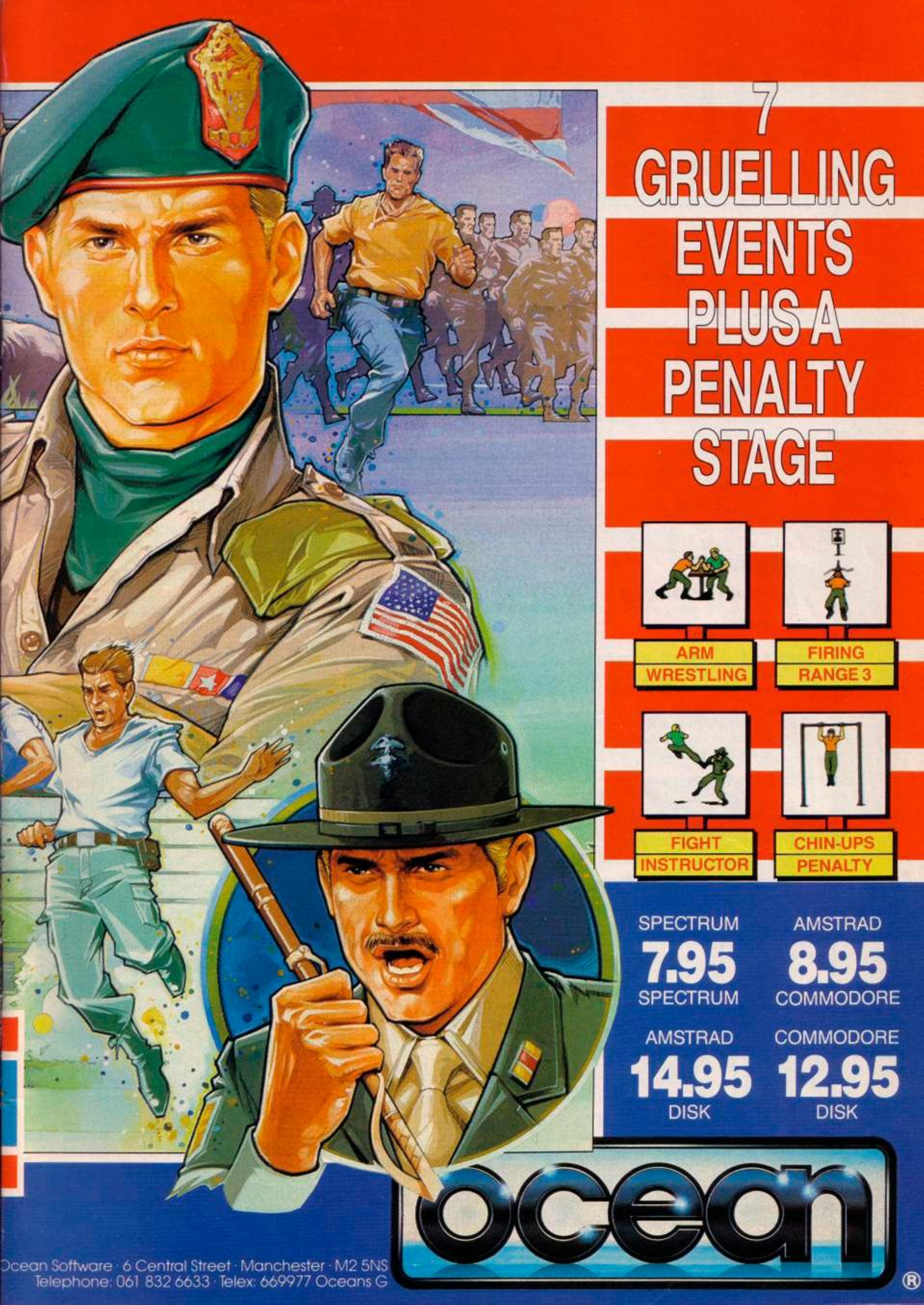


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Tips from Pendown's author




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AMSTRAD ACTION DECEMBER 1987

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NEWS ● LETTERS

SERIOUS SIDE

SOFTWARE ● HARDWARE ● PROGRAMMING





ACTION & ADVENTURE

GAMES ● MAPS ● PILGRIM





INTERACTION

CREATED BY YOU AND FOR YOU



WRAPPING UP

THINGS TO BUY● BYE

Spice of Life

Variety is the spice of life. Here at AA we try to give you as much variety as possible because we know you want to use your CPC to the full. This month's cover reflects the fact, and you can expect to see more of the same in the future.

Teletext adaptors aren't new, but now you no longer have to have a video to use one, or buy an expensive TV set. If that's not enough to keep the hardware hoarders happy, we've got a great project showing you how to build your own RS232 interface – at a cost of just £12.

Of course you may not be interested in hardware, in which case we've got some excellent programming articles for you. Type-ins has its usual mixed bag of programs, led by a cracking listing that performs Quantel-like video effects on any screen dump. There's also the beginning of a fascinating six part series on creating your own word-processor to operate under Basic.

Having got through the hard stuff, you can relax awhile with great new games like Red L.E.D. and Thundercats. Adventure fans will be delighted with the Pilgrim's look at the latest Infocom games – not just reviews, but previews as well.

As you can see it's an issue bursting with good things to satisfy all tastes. Don't forget it's you – the reader – that decides what goes in the magazine. By popular demand Absolute Beginners returns next month to help the newcomer to Basic, and there's the start of a new series on learning assembly language and advanced programming. It's going to be a hot one!

Bob

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The address to send your letters to is: Reaction, Amstrad Action, 4 Queen Street, Bath BA1 1EJ. Remember we can't reply personally to letters, otherwise we wouldn't have time to produce a magazine each month. All mail-order and subscription enquiries or problems should be aimed at our Somerton address listed on Line-up - we just have to pass them on if they come here.

Bowled over

In response to Mr Russell Potter's letter in last months Amstrad Action. I would like to announce that I have been selling copies of a 3" disk based cricket statistics programs over the last year to cricket clubs throughout the UK. I originally developed the program for my own clubs benefit when I realised that there wasn't an Amstrad compatible program on the market.

I'm glad to say that the program is capable of all the functions that he mentions, ie, it will collect, store and print out game results and individual playing records. What's more, it will sort the tables of statistics in order of any of the data items listed in them. The program is Menu driven and is supplied with full operating instructions.

The cost is £12.50 plus p&p. For more details write to R.C. Barton, 14 Heol Waun-Y-Nant, Whitchurch, Cardiff, S. Glamorgan, CF4 1JZ.

R.C.Barton
Cardiff

Antipodean copyright

Before moving to Australia from the UK, I took out a subscription to A.A. This proved to be good foresight, since A.A is not available in Darwin yet.

I recently bought the August edition of an inferior independent Australian magazine,"The Amstrad User". The inclusion of sections such as Hot Tips and Cheat Mode makes the format of the two magazines very similar. What is more disturbing is that some of the content is identical.

Neil Robertson
Wanguri, Australia

Nice of you to point it out Neil, but fortunately there is an explanation. The Australian "Amstrad User" has permission from us to reprint sections of the mag, in return for some measure of pecuniary transfer (loot). I wish them well, with what appears to be a small but thriving Australian Amstrad market.

Static warning

I have a WARNING! Twice now I have damaged my computer with static electricity. The first time it made my computer unusable. I had my computer all plugged in, but not switched on, then I go to plug my Joystick in, and a spark jumped from the joystick socket to the plug on the computer. This time the 464 was still under guarantee, and it was kindly exchanged. The second time it has knocked out one of my sound channels, but I can live with that, one day I shall take it to bits to find what is wrong, (it's ok, I work with electronics). So please pass the message on, I would hate it happening to someone else.

Malcolm Couldstock
Chester

Too late Malcolm, I've already managed to do it as well, under exactly the same circumstances. The only advice we can give is not to plug or unplug the stick while the power is on, and to make sure you've earthed yourself to discharge static electricity before handling the equipment. It's rare that these events occur, but if you seem to be prone to static because of carpeting or other reasons, then it's worth taking the precaution.

Market management

Hopefully, I can come to the rescue of Mrs Cole of St Albans (Reaction, issue 25), who is in search of a shares management program. I was looking through some old mags (all AA honest guv!), when, lo and behold, I came across an ad for a package called Stockmarket form Meridian software, 38 Balcaskie Road, London SE9 1HQ. 01-850-7057.

It appears to fit the bill and is available for a price of £29.95 for a disk version.

Steve Farrar
Blackthorn

Thanks for the info, and to the other readers that notified us of the package. In view of October's events on the stock market, I should think Mrs Cole needs the product more than ever.

Moans and groans

I know you won't print this letter, but I will feel a lot better having written it. I have subscribed to your mag from number one, I have just received no 25, October edition which to me was the last straw.

Here is a list of my gripes:

1. It cost £16.50 to subscribe, I can buy 12 issues from W.H. Smiths for £15.00 and Smiths always have it in stock 2 or 3 days before I receive my copy.
2. Your subscription offer, you offer a choice of 3 great games for tape owners and we disk owners are offered a load of rubbish.
3. When your mag first came out it was really great, and totally different from the other 2 mags on the market, it had 100 pages and each issue it went from strength to strength. It always had nearly 100 pages or more that is until number 23 which just happens to be a couple of months after the demise of Amtix, (your price increase just happens to coincide with the demise of this mag) the new breed of Amstrad Action was born, the 70 odd page magazine. If this is the trend of the future (publishing) you will have to do it without my support.

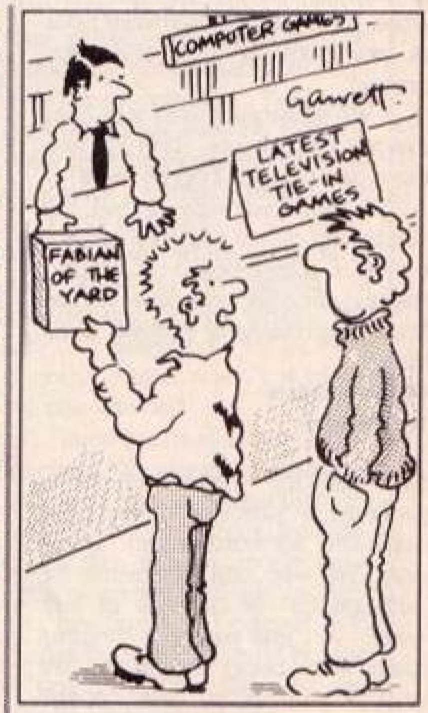
R J Marshall
Redcar

The cost of posting 12 issues of the magazine is more than the £1.50 extra that a subscription costs, and it guarantees you'll get your copy without having to chase round the shops before they sell out. The late postal arrival I'll look into, but past investigations have shown problems to be isolated postal difficulties – we'll do what we can.

I'm perplexed by your criticism of the subs offer. You can get a £9 game and 12 issues of the magazine, together worth £24, for £16.50. If you don't like what's on offer, they do change from time to time. However I'll look into whether the games can be made available on disk for an increased subscription rate.

Your third point covers several issues. I can't help it if the other two mags try to copy all our good ideas, now can I. We just have to stay a couple of steps ahead. The price rise was indeed coincidental with Amtix's demise, we still have to compete with other magazines and don't take such important decisions just because there's one less magazine around.

The size issue is a seasonal effect. The summer is a notoriously poor period for computer games, hardware and magazines alike. Our size is regulated by advertising – few ads leads to small mags. As the Christmas boom approaches things pick up. You'll notice last issue was 84 pages and this one 92. We can't compete with the ACE's and C&VG's of the world for sheer size, but every editorial page we have is aimed at CPC owners.



"SCRAPING THE BARREL A BIT, AREN'T THEY?"

Garbage out

There are thousands of computer games around. Too many of them are the same old thing regurgitated with new shapes, colours and titles. It seems to me that computer software could be far more intelligent.

Programs which play chess, bridge etc, show how really intelligent computers can be. Would it

not be possible for a computer program to generate original ideas or original art? For example; programs to think up new designs for things? Or to compose new music (on synthesisers now) or generate original pictures? There are lots of possibilities for new kinds of software. It's a pity that software houses are making film titles into games.

We sometimes read that commercial games are short of new ideas and I couldn't agree more.

PLEASE, software houses, we don't want all our software shops to be full of games based on fighting, stealing, murder and other crimes. There are dozens of civilised possibilities.

Graham Steele
Windermere

One of the oldest computer proverbs is "Garbage in, garbage out." The software author is the only one who can determine the "intelligence" of a piece of software. At the moment original ideas ARE being stifled by film and TV licences, but there's a simple reason for that – people are buying those types of games.

If there's a demand then the software houses will supply it. Their priority is to make money. If everybody stops buying licenced games the software houses will stop producing them. I think that's unlikely to happen, but it won't stop me supporting original game ideas and criticizing old rip-offs.

Bugged by football

You may recall my answer to P Winter's problems with the 'Aliens' disk, i.e. send it back to Electric Dreams. Well I hope he received as prompt attention as I did but I have recently purchased another disk based game, namely *GFL Championship Football.* What do I find? Well, more problems. So I ring Activision in London and I am politely told that they have "had a number of bugs" with the game. The most notable bug I have is that as soon as a touchdown is scored there emits a continous loud tone that only a reset cures.

So are software companies relying on the public to do their testing? Surely the bug I describe should have been spotted by the most basic of checking? Now I must send the game off to London, at my expense, and wait for a return from them. When I bought the game the shop was able to get hold of it in twenty-four hours, could it not be replaced in the same way?

Frankly with such poor standards of quality control, high prices and duff games being produced, piracy looks ever more attractive and morally justified. I ask the question, how many other A.A readers have similar problems with disk based games?

Ian Black
Midhurst

Colour by numbers

Just had a great idea while slaving over a hot keyboard using the art package - Screen Designer.

How about you guys producing a COLOUR CHART showing not only the INK NO's and NAME but showing the colour. As we can never see all 27 colours on screen at once a colour chart would be wonderful. You know what it's like trying to decide which colour to use from a list of fancy names - INK 12 called yellow looks green to my eyes - to see all colour on a card would be great. How about it?

Charles Joynson
Bradford

If you can find a copy of issue 20 you'll find a type-in called "multi-coloured modes", which allows all 27 colours to be viewed at once in mode 0. It also gave you 8 in mode 2 and 16 in mode 1.



"... AND SO THEY PRESSED THE ESCAPE, CONTROL AND RETURN KEYS TOGETHER AND LIVED HAPPILY EVER AFTER..."

Hard up down under

Do you know about the software and hardware crisis in Australia? Obviously you don't! The fact is there is a desperate one, for me at least. Because as far as I know, there is virtually no software or hardware in Australia. What can I do about this? Where do I find software? Up to now I have been purchasing software through contacts in England. This is time consuming and expensive, as it takes months to get here by ship and costs as much as the game to send by air! Can you list shops in Australia where I can buy software?

In England I was a loyal Amstrad Action fan but, now in Australia, I have found copies to be months out of date and competitions long gone. Fortunately, friends in England have sent me up to date issues and, after reading issue number 25, I wondered if I could subscribe and obtain the free game. Please answer my questions as I am desperate!

Stephen Harris
Sandringham, Australia

I can't be much help on the matter of getting hardware and software in Australia, perhaps other Oz readers can assist? Overseas readers can subscribe and get their free game, for the sum of £26.50 – even if their way out in the Outback or deep in the heart of the Peruvian rain forest. So there's no need to be desperate, just get that subs form sent off.

Find that pixel

I am writing to ask whether there is such a thing as a pixel pad for the Amstrad CPC 464. I have looked everywhere and cannot find one. If there is such a thing could you print the address of the company who make it in your magazine.

John Lumbus
London

I'm afraid I have to plead ignorance, but I'm sure someone will know of a source and we'll pass it on

Reviewed or not?

Why have you never reviewed the *Protext* word-processor?

"Aah but we have", I hear you cry. Yes, but I am referring to the complete word processor package on on 3" disk, that retails for around £80 or less.

It has merge, text, spell (33,000 word dictionary to which you may add further words) as well as numerous disk utilities such as copy, format etc.

Ok, so it's pricey, but you do seem to get a lot for your money and having looked at the package it appears to be powerful and sufficient for most needs.

Besides "Amtix" are reported to have said that this program kicks *Wordstar* into touch - but I would like the professional's opinion before I decide to buy it.

JR Turley
Norfolk

The last full comparison we did of word-processors was in issue 18. Since then there have been no major releases of WPs on the CPCs. We do plan another comparison of WPs still on the market, but at the moment the results of the issue 18 survey still hold true - and they're too detailed to sum up in the reply to a letter.



"SORRY - THAT'S ONE OF THE ETERNAL MYSTERIES OF LIFE - ALAN SUGAR'S NEXT MOVE."

Printing problems

My son and I have been readers of Amstrad Action since the first edition and I am writing to you about the "overprinting" of pages, particularly of Type-Ins in the November 1987 edition.

I find the overprinting extremely distracting when trying to copy in the listing but equally, I find the idea behind it very distasteful, reducing the magazine to the level of vandalism on hoardings. After all, we are paying for the magazine and have done for the last 26 issues. To be direct, the practice is totally unnecessary and cheap graphics doodling and in conflict with the easy-to-read contents display on pages 4-5 of the same edition.

May I request that you abandon the overprinting style altogether, not just on listings, but throughout the magazine?

A Eden
Crowthorne

Upon receiving your October edition, I was dismayed by the very pale print used for the Type-Ins - my old eyes just can't cope with that sort of thing! The blotches on the page are no help, either; they may look like pretty patterns on the page seen as a whole, but mixed in with the text, they are just dirty marks. However, you had changed your printing process, so I

I read October's reaction with interest, (as usual). The letters about hacking (re.Simon Andrews and Bob Mackenzie) raised my eyebrows.

I have been hacking for about a year - my friends longer - and I have never hacked a game in order to copy it! Many hackers hack a game for infinite lives pokes or to simply add their own "trade mark". I had a few hours fun changing Mastertronic's *Chronos* to *Chronic* and changing the credits, loading screen and end of game messages.

I wrote to Novagen asking how to change Benson's messages in *Mercenary*. They kindly wrote back telling me it was futile and how it was protected!

As for "Black Boxes", they have protection systems to prevent piracy. eg. Multiface II. It can only load games it has saved with the unit attached.

Anyway, the majority of software nowadays can be copied with good old tape-to-tape decks!

Marcus Fletcher
Carlisle

Of pirates and dongles



I am writing to you on the general subject of software piracy and, more specifically, on the industry's attempts at stopping it.

I wholeheartedly agree with your views on piracy. It is killing the software industry, which is bad news for all of us – including the pirates. On the other hand, as long as software prices are set so ridiculously high, it is inevitable that people will seek cheaper ways to enjoy games.

It was to this end that I bought Romantic Robot's Multiface II. I can not afford to regularly buy disk-based games for my 6128, but naturally prefer the speed and convenience of loading from disk (it was, after all, my main reason for buying a disk-based machine!), especially with two young kids forever wanting to swap from one game to another.

I have never used my Multiface II for any other purpose than backing-up my own legally purchased software. I realise that it does provide a means of making a working copy of someone else's software, but I have never used it for this purpose - not even when the opportunity has presented itself. I simply want to be able to run games from disk. If software companies did not insist on such a huge mark-up for games on disk, I would not have even contemplated buying such a device.

Of course, it is right that software companies should seek to combat piracy but does it have to be inevitable that it will be the innocent who are forced to pay the price for their efforts?

By using programming devices that check for "black boxes", software houses are knowingly punishing the innocent (the majority) for the crimes of the guilty (the minority). If their sincere aim is to combat piracy, then they should simply reduce their prices, especially of disk-based as compared with cassette-based software. The innocent would not then be made to suffer and the incentives for those obnoxious pirates would be markedly reduced.

After all, which program is most likely to be pirated? A Mastertronic game which you can buy brand new for £1.99 or a game which costs £14.95 for the disk version?

Even the most peaceful and innocent of nations if attacked will do its best to defend itself. By waging war on pirates, the danger is that those formerly innocent of piracy will be brought into the battle. If I cannot load games from disk without having to pay £14.95 for the privilege, then I simply won't bother.

Kevin Patton
Hemel Hempstead

After reading Bob Mackenzie's letter about software piracy (Reaction 26), I think that he got a bit carried away with himself.

He thinks that we should not make backup copies of software, and also seems to think that we couldn't care less for the software houses. Well he is forgetting one thing, those people who genuinely want to backup games in order to keep their precious originals safe.

Where would I be if i bought a game that cost £9-15 and it was accidentally damaged? Minus both my game and money.

This is what devices like Multiface Two and the Mirage Imager are intended for, it's just unfortunate that there are less considerate people around who use these devices for their own gain.

Nobody wants to kill off the software industry because then there would be no games. I'm certain that CPC owners would be lost without games, I certainly would.

I believe piracy is also responsible for the high cost of games, as the software houses have to make up for the losses because of it.

If things like the "dongle" (mentioned by Roger Payne inReaction 25) were used then this would stop the piracy, and it would then also cause the drop in price of software.

Cheaper software would enable us to buy more of it, and this would make the software houses produce more games, then we'd all be happy.

Andrew Rushford
Glasgow

There are two basic problems with the dongle idea. The first is that you would have to get a standard interface which everyone used, and that's difficult in a notoriously independently minded industry. Secondly there's the cost of each dongle, which would increase the price of the software and leave us all back where we started.

hoped things would improve with time.

The November issue, just received, indicates otherwise, indeed one bit of code in item 4 of Problem Attic would defeat the eyes of a hawk! I regret to say that if you cannot go back to using bolder, preferably black print, shall reluctantly have to get back to reading ACU.

Pauline Russack
Northampton

Now don't go and do something silly that we'll regret. We apologise for the faint printing in the last two issues, and hope you'll find the listings easier to cope with this time. The overprinting has also been modified. We like to brighten up the Type-Ins pages where we can, but where this conflicts with clarity it's obviously counter productive. I think you'll find this issue much easier on the eyes.

Epson incompatible

I thought you'd be interested in my experience with *Stop Press*.

A friend of mine purchased the original *Pagemaker*, and despite the bugs it still promised to be a very good piece of software. I was interested in purchasing a copy, but naturally waited until the new edition was released. When your earlier article about the new edition was printed, he returned his early copy of *Pagemaker* and was duly sent the new copy of *Stop Press*. It now does all it was supposed to do, except that is when used on my set-up. I have a CPC 1628 with Shinwa CP80 printer attached, while he has an Amstrad printer. The screen operations are fine, the problem lies with the print-out facility.

The output obtained on the Amstrad printer excellent, but on the Shinwa...! The output is compressed, and only covers approximately two thirds of the width of an A4 page; it's totally unusable. I've written to AMS explaining that I was seriously considering purchasing a copy of *Stop Press*, but thankfully have had a chance to "try before I buy". AMS have replied, saying (and I quote).

"The problem is due to fact that the bit image capabilities of the Shinwa CPA-80 are not adequate for high resolution printing from *Stop Press*. As a result of this compressed output is obtained.

Due to the immense problems surrounding Pagemaker, our time was spent debugging the program rather than developing new screen dump routines.

Stop Press **meets its requirements with regards printer compatibility** and we do not expect to develop further drivers".

(N.B The emphasis in the last paragraph is mine, the reason for which you shall soon discover).

It seems that there are degrees of Epson compatability. I always thought that the Shinwa was Epson compatible, it is with every other piece of software I own. To add to the mystery, if you care to examine the manual provided with both *Pagemaker* and *Stop Press*, you'll find that among the list of printers supported by the software, the Shinwa is listed!

I have asked AMS to explain the discrepancy, and am awaiting a reply.

Kris Morris
Saltash

The problem with "degrees of Epson compatibility" has cropped up before. We fell foul of it in one of our reviews. It seems the only real answer is to either test the product with your printer before buying, or get the producers to cast-iron assurances that it does, so that you can get your money back if it doesn't.

Helpline update

Regarding the Helpline and the reply to Simon Andrews' letter (pp. 10-11,AA 26), you will be interested to hear about a new member of the Helpline, Jean-Philippe Battu.

I was sent a letter by Monsieur Battu about two months ago asking about software I owned and had written myself. Three weeks later, an extraordinary document arrived.

It was a huge photocopied list of 1269 (!!) programs he had copied. He was offering to swap some of them for the *Advanced Art Studio* and *Print Master*, which were mentioned in my Helpline entry. I passed the list and accompanying letter on to Jeff Walker, the editor of WACCI, who, as you will probably know, is a committed anti-pirate.

The time and effort put into this mass copying must be incredible: on a quick scan through the list, I estimated he had about 400 disks full of copies (over £10,000 worth of programs), plus just about every hardware device and ROM available for the CPC's.

Just to let you know...

Alistair Scott
Grangemouth

Thanks for the information. We have removed Mr Battu from the Helpline.

World class bug

I was disappointed to find that Chris Boothman's review of *World Class Leaderboard* failed to alert your readers to a serious bug: a bug, that for me, makes the game almost unplayable.

I have lost count of the times I have carefully addressed a short putt, only to see the ball float inexplicably over the centre of the hole. An error in my judgement? No. Not after the ball failed to drop from within three feet after twelve successive attempts!

After much testing, I have managed to pinpoint the bug to certain types of putts. Namely, one to twelve feet putts when the hole looks nice and wide. On these occasions it is almost impossible to make the ball drop. Only when the hole is small-looking will these short putts drop.

I know you might think that I am just hopeless at the game, but it is not true. I have shot 58 on course four of the original *Leaderboard*, so I must have a certain level of proficiency at the game. I implore you to test this for yourself, especially the two or more player game where the bug is really apparent. I wrote to US Gold two weeks ago, but I have not yet received any reply, and do not really expect to get one. As a poor, humble student I cannot afford to go splashing out cash left, right and centre, especially on bug-ridden games. Perhaps if enough pressure is put on U.S Gold, they might do a Firebird and debug the game before swapping the duff copies with nice, shiny, new, working copies, as was the case with *Elite*.

Alan McDermaid
Edinburgh

Master fan

In past issues you have raved over many Mastertronic games and also raised the question that if the big M can release quality software at a sensible price, why can't bigger companies produce even average software at extortionate prices? Well, I think that I know the answer, so read on McDuff.

a) QUALITY GAMES - The answer to this is simple; Mastertronic employ a very strict quality control on all their games. They know that bad games will not sell well so they don't bother marketing them (unlike other companies who will release anything, it seems).

b) CHEAP GAMES - The answer to this is also simple; Mastertronic do not spend lavish amounts on glossy adverts, but instead use the money to cut overheads, and therefore drastically cut game prices. Also, to complement this, they have sensible packaging - i.e. they do not have cassette boxes which are twice as big as the actual tape itself (unlike the other companies). This also leads to cheaper software.

Other software companies beware - no longer can you charge us £15 for naff games; get your act together guys!

If I win the £15 software voucher I will spend it on 7 decent mastertronic games (and have £1.07 change) rather than buy one naff "full price" game.

N Selwyn
West Lulworth



"ME? - I WAS ADDICTED TO BUYING ALL THE FUTURE PUBLISHING MAGS EVERY MONTH"

Reaction hit

Reaction must be one of the first pages that the reader turns to for interest, enquiries and problems which, surprise, surprise, often identifies with more than just the writer. This must be THE section for "Regular" and not-so-regular readers alike.

Issue NO 26 November 1987 was no exception and my experience with the DK'tronics 64K RAM made the 464-6128 conversion an immediate hit. Have you had a chance to test the Amstrad 400025 ROM yet?

My reason for writing is that my 64K RAM has never worked on the 464 with single or twin AMSTRAD disk units. It has been returned to DKT twice and they now say that RAM Electronics Ltd will repair and, anyway, "It is out of its warranty period".

A letter to RAM asking if this is correct has not yet been answered and one can hardly avoid the feeling that the £47.27 has been lost without trace somewhere in outer space.

Hence my interest in the result of your test changing the 40009 ROM and while this could cost a further £12.24, anything you can say can only be good news. Is the 40025 used with the extra 64k ROM or in place of ?

My faithful 464 by the way, has always enjoyed a hearty breakfast with plenty of |ERA, "*.bak" as part of its daily diet!

Software piracy is something we will all have to live with: while manufacturers and suppliers offer copying methods that can be freely used, while there are easy opportunities on the continent with sophisticated copying kit and while we have merry young hackers who can manage very well on their own - thank you.

User clubs and (dare I say it) Help Lines can provide easy opportunities for those who want something for nothing. Do some manufacturers "protest too loud" when their products are priced too high and thus actually encourage the dreaded pirate activity?

Other suppliers may cause customers to part with money in good faith for "guaranteed" products that do not give satisfaction and it could be that pirating is just a mild form of "getting ones own back".

Until honest manufacturers get together in their common interest to find a low-cost and effective method of protecting their products - perhaps by a University research grant - then they will never have a powerful protection racket of their own.

F.B Brighton
Sheffield

As yet we have not tried replacing the 40009 with the 40025, but several readers have phoned to tell us that it works successfully, 100% of the time.

Reform reformatter

It's all very well you printing articles, type-ins etc in Amstrad Action, but there are still quite a number of readers who have not yet managed to fully understand all the ins and outs of the world of computers, myself included. After typing in Reformatter from page 21 of No 26 November issue, I ran the program, then loaded a letter for reformatting. This worked but the following happened, my letter contained a number of pound signs ie, £9.99, £9.87 and when my letter is reformatted on screen the £ is changed to a matted type character and on paper as well as you can see it is no longer there, being newish to computers I don't even know where to start to solve this problem.

Another useful program was Hash/Pound from page 22 of number 23 August Amstrad Action, but how can I stop line 60 "print £ and £ symbol set" being printed on the top of the first page after running the program?

These problems can no doubt be solved by you and your team of experts be it seems a mission impossible for me.

In Reaction, mag number 26 a question on the 464/6128 conversion, if I changed the ROM 40025 would I gain anything without the DK'Tronics 64K upgrade?

C H Spragg
Sale, Cheshire

Look out for our Absolute Beginners course next issue. If you alter the rom you get a few extra commands – such as FILL, FRAME and GRAPHICS PEN – which are handy. Disk error messages and error trapping are greatly improved. So, yes, it is advantageous to change roms.

Helpline

Where eager Amstrad experts volunteer aid to fellow readers having problems

If you too feel helpful, just send us your name, address, phone number (say so if you don't want it to be printed) and subject on which you want to help. Please write on a postcard or the back of a stuck-down envelope to simplify administration here in the office. Send to: **Helpline, Amstrad Action, 4 Queen Street, Bath, BA1 1EJ.** If you are asking for help, make direct contact with the appropriate Helpliner - don't pester your usually-patient (but pressed) editor. By post, you must include a self-addressed, stamped envelope for the reply - otherwise you won't get one. And if you telephone, stick to socially acceptable hours!

If you've read the Reaction pages you'll know there's been a problem with software pirates using this page. If this sort of thing occurs then the culprit will be removed. If there's evidence of a major problem then the column will have to stop entirely. If you want Helpline to continue, then help us keep it clean by removing any suggestion of piracy. 'Nuff said.

A further reminder that the lists of games you're sending in are getting too long. I don't want to stop them, but in future you'll be restricted to a maximum four lines each (not including the name and address). I've shortened several of the lists, so if you're not happy with them send in an amended list.

pokes, tips, maps, debugging, Basic programming, will type in listings
Mark Hillier, 121 Eliot Bank, Forest Hill, London, SE23 8XD ☎ 01-291 6390

Laser Basic
Trevor Prince, 46 Hillport Ave, Porthill, Newcastle, Staffs, ST5 8JZ

Knight Tyme, Spelldome, Pipeline 2, Harvey Headbanger, Alien Highway 2, The Apprentice, International Rugby, Raid, Mutant Monty, Donkey Kong, Sweevo's World, American Football, Jet-boot Jack, Blagger
Roger Murphy, 6 Glenageary Woods, Glenageary, Co Dublin ☎ (0001) 80 6858

adventure programming
Simon Forrester (age 13), 15 Halcroft Rise, Wigston Magna, Leicester, LE8 2HS

tips, pokes, maps for Rebelstar, Back to Reality, Xeol, Knight Tyme, Spellbound, Finders Keepers, Equinox, Get Dexter, Zoids, Antiriad, Chronos, Sentinel, Deactivators, Aliens, Stormbringer, Starstrike II, Nexus, Mercenary, Nonterraqueous, Tau Ceti, Exolon, MGT, Dragon's Lair, Icon Jon, Ranarama, Academy, Starglider, Nether Earth, Star Raiders 2
Steve McClay, 32 Lycett Rd, Wallasey, Merseyside, L44 2DA

Basic programming and guidance on routines
Stephen McCormick, 27 Coshneuk Road, Millerston, Glasgow, G33 6JH

writing programs, machine-code, solving problems, GAC and mapping adventures, testing adventures and other forms of program, teaching programming, graphics, sound – and almost anything else
IR Murphy (aka Smurf the Warlock), 25 Craven St, Accrington, Lancashire, BB5 0SE

Art Studio, Mini-Office 2, DMP 2000 - CPC 6128
David Marek, 2 Camus Road West, Edinburgh, EH10 6RB

programming in Basic and machine-code, Knight Tyme
Phil Stockdale, Thorndale, 18 Shire Rd, S Ferriby, S Humberside, DN18 6JG ☎ (0652) 34363

chess programs, Tasword 6128, Print Master, Toolkit (Beebugsoft), Advanced Art Studio, Mini-Office II, Advanced Music System, disk utilities (and writing them yourself), RSXs and firmware calls
Alastair Scott, 30 Talbot St, Grangemouth, Stirlingshire, FK3 8HU

programming in Basic and machine-code - 464
Michael Ewan, Hall Bank, New Hutton, Kendal, Cumbria, LA8 0AU

Adventure writing –GAC, Quill etc. Also play-testing and evaluation, program listings etc. Anything at all to do with writing adventures!
Pat Winstanley, 13 Hollington Way, Wigan, WN3 6LS

Basic, Forth, assembler, firmware, graphics, digital electronics - 664
Tim Mo, 180 Brookland Terrace, New York, North Shields, Tyne and Wear, NE29 8EP

tape-to-disk transfer, infinite lives, maps, adventure solutions, French games, Amstrad program guide
Phil Maxfield, 40 the Brow, Brecks, Rotherham, S Yorks, S65 3HP ☎ (0709) 54 5055

Basic programming (mainly utilities but some games)
Mark Bonshor, 4 Stoop Lane, Quorn, nr Loughborough, Leics, LE12 8BU

Basic programming, useful calls and pokes, hacking, tape-to-disk, Melbourne Draw, supersprites, repairing joysticks, tape loading, Basic scrolling messages, sprites in border, ripping out title pages, music and effects from games
Carl Harker, 38 Lyndon Ave, Blackfen, Sidcup, Kent, DA15 8RJ

Basic, Logo, Laser Basic, CPM, Fig-Forth, simple machine-code, GAC, disk or tape loading, tape-to-disk
Edward Reid, 157 Ladyloan Ave, Drumchapel, Glasgow, G15 8RX

bridge clubs - scoring on Mitchells, aggregate and Howells, name and address lists, library books, master points (calculation and certificates) - all CPCs using CPM for Masterfile and Superscript
FB Brighton, 30 Ranmoor View, 410 Fulwood Rd, Sheffield, S10 3GG ☎ (0742) 30 7555

Basic programming, printing problems (on DMP 2000), loads of games, pokes, maps, type-ins, machine-code
Guy Sanders, 270 Willesden Lane, London, NW2

any aspect of writing a fanzine
Richard Hannah, 48 James St, Helensburgh, Strathclyde, G84 8XG ☎ (0436) 3310

Basic, machine code, Dataflex, Xenix, Turbo Pascal, GAC
L.V. Townsend, 61 Lowergate Rd, Accrington, Lancs, BB5 6LN. tel. 0254 382349

programming basic 1.0, sound (some enveloping), graphics (collision detection and animation), interrupts, tape and disk filing, printer commands — DMP 2000 — printing of listings, screen dumps, letters (phone for details of cost before sending), DKtronics speech synthesiser, writing simple databases searches and sort routines
Gavin Manning, 20 Windsor Rd, Wanstead, London, E11 3QU ☎ 01-989 8843

C&G 747, HNC Computer Studies, serious users
John Wharram, 61 Silver Crescent, Chiswick, London, W4 5SF

machine-code, CPM, hacking - 6128
Tony Hoyle, 11 Dorset Rd, St Annes, Lancs, FY8 2ED ☎ (0253) 72 7368

Basic, machine-code, especially graphics - 464
PJ Higginson, 194 Turton Rd, Bradshaw, Bolton, Lancs, BL2 3EE ☎ (0204) 58907

Basic, some machine-code (will print listings for 50p + 5p. page +sae) - 6128
Andrew Smith, 5 Station Rd, Foggathorpe, nr Selby, N Yorks, YO8 7PU ☎ (0757 85) 540

Basic, simple machine-code
Duncan Ellis, 6 Clifton Terrace, Ilkley, W Yorks, LS29 8ED

Laser games, assemblers, firmware
Martin Packer, 393 Whitton Ave East, Greenford, Midx, UB6 0JU ☎ 01-935 6600 x4283 or 01-423 3452

Spellbound, Eidolon, Dragon's Lair
Scott Miller, 7 Inverness St, Drumoyne, Glasgow, G51 4EW

CPM star, DMP 2000, Cobol, Nevada Cobol, Turbo Pascal, Locomotive Basic, colours from Basic, disk to tape, disk to disk, Tasprint, databases - 464
Allen Reavie, 22 Mourneview St, Portadown, N. Ireland, BT62 3AW

machine-code programming
Jim Tripp, 24 Orchid Close, Taunton, Somerset ☎

machine-code, Basic, Logo, CPM, graphics, sound, most CPC games
PJ Cook, Prestel 011 110 750

programming (Basic, some machine-code)
Jeffrey Hunt, 2 Deweys Way, Gillingham, Dorset, SP8 4BW

Listings and text files 9p per K. Send a disk or tape. NLQ doubl. Screen dumps 50p. Postage free if over £1.00 else add 33p. Penpals computer matched. Free advice on Basic programming and adventure writing. Debugging service, list of ideas for school programming projects. GAC help (all free).
Daryl Ward, 3 Pineways, Appleton Park, Warrington, Cheshire, WA4 5EJ. tel. 0925 64805 between 6.30 and 7.30pm

Hints, maps and pokes for Jack the Nipper, Get Dexter, Sorcery+, Zub, Grand Prix Simulator, Seabase Delta, Doomsday Blues, Knight Tyme, Enchanter, help on downloading games from Microlink
Daniel Webster, 17 Chandos Close, Buckingham, Bucks, MK18 1AW.

Basic programming 464, machine code 464, Maxam on rom, DDI-1 disk drive and using 3" disks
Martin Wilcocks, 38 Ambleside Close, Bromborough, Wirral, Merseyside, L62 7JF. tel. 051 334 8812

Programming (Basic and machine code), graphics, sound and music, some hacking, debugging programs, Amstrad Light Pen
Andrew Stevens, 4 Kingston Avenue, Acklam, Middlesborough, Cleveland, TS5 7RS. tel. 0642 813052 - not Tues or Fri evenings or during college hours.

Dizzy, Destructo, Rambo, 3DC, Eagles Nest, Black Magic, Trap Door, Renegade (levels 1-5)
J. Redfern, 10 Oaktree Close, Mansfield, Notts. NG18 3EN

464 Basic programming (most aspects except sound), adapting routines for personel use, will type listings for tape + 50p + SAE + 50p postage.
John Girvin, 25 Moorgate Street, Belfast, BT5 5BZ. tel.Belfast 658939 between 7pm and 10pm.

Pokes, French games, Masterfile, (penpals wanted 464 with disk drive, interested in hacking games and tips etc.)
Geoff Smith, 60 Blackburn Crescent, Chapeltown, Sheffield, South Yorkshire, S30 4EG

Elite, Yie Ar Kung Fu, Commando, F Freddy, Space Harrier, Football Manager
M.Levy, "Brecon", Woodside Lane, Finchley, London, N12 8RG. tel (01) 445 0220 (weekends (01) 209 1006)

AMSCENE

Monthly update on what's new on the CPC scene

Legal battle looms

Epson has issued a writ against Amstrad. The reason is to prevent Amstrad using the letters LQ on their latest batch of printers.

Epson, who has been manufacturing printers with an LQ suffix for the past four years, objects to Amstrad's use of LQ because they claim dealers have come to associate the designation LQ with Epson printers.



According to Andy Mackay at Amstrad's PR agency, "Amstrad will defend its position strenuously. Epson are wrong trying to put an injunction on the letters LQ when several other companies use NLQ on their printers." Andy added that Amstrad will continue selling the printer as the LQ3500. It seems, then, that Amstrad and Epson are to be locked in a legal battle.

The situation is rather ironic for Amstrad because they took legal action, for a similar reason, several months ago, when they attempted to prevent companies using AMS in product names. In that instance it was because the suffix stands for Alan Michael Sugar.

Both cases revolve on the issue of "passing off" – naming a product so as to gain an unfair advantage through confusion with someone elses product and reputation. Amstrad claim that LQ is a generic term meaning letter quality, and is in common usage and therefore can't be a trademark (in the same way as "hoover").

Ocean dive in

Ocean held a press open day – to demonstrate their flotilla of stocking fillers software for this Christmas. David Ward, joint director of Ocean, had some



good news for Amstrad users: The summer months recorded a low in Amstrad software sales which reflected in the number and quality of releases. Recently, however, sales have picked up surprisingly well; we are working hard at producing several top quality games for the machine."

David promised a flood of hot hits for Christmas and early next year. Indeed, to support David's claims, several top titles are near completion. *Match Day II* will probably be the first on the field; written by Messrs Ritman and Drummond, of *Batman* and *Head over Heels* fame, it looks good and plays well. Following hot on its heels is *Combat School* a multi level coin-op conversion. To graduate the player must pass through assault courses, firing ranges, arm wrestling, and other joystick waggling events.

Many recent Ocean games are split into several sections. When one part has been completed the next loads. For tape owners it takes several minutes to load each section. However, on a 6128 or 464 with memory expansion things are a good deal quicker. As Mark Jones, graphic artist for *Renegade* (now working on *Gryzor*), explained: "It is a simple feature which can save a lot of unnecessary hanging about. Unfortunately nobody seems to have noticed this point; even though it's mentioned in the instructions."

Does your copy of *Renegade* suffer from blue blood? It's not a bug but an intentional move on the part of Ocean in the light of recent events in the "real" world. It seems a little unnecessary to us, it's a violent game and the colour of the blood isn't going to make much difference.



In the shops between now and January are scheduled: *Flashpoint* – a strategy game, *Phantys* – science fiction fantasy



story about exploring a new world, *Fantom club*, *Platoon*, *Where time stood still*, *Victory Road* and a waterfall of other goodies.

A compilation worth looking at is *Live Ammo*. Five games at £9.95 on cassette and £14.95 on disk. *Army moves*, *Rambo*, *Green Beret*, *Top Gun* and the *Great Escape* are the titles.

Northern lights

Another Official Amstrad show has been and gone. The venue was the Greater Manchester Exhibition Centre (GMEX). The size of the exhibition centre may have increased, but the number and size of exhibitor stands dropped. If you looked hard there were several new products for the CPC machines – and the promise of a lot more to come.

The largest CPC-only stand belonged to Siren Software. On show was the new eprom programmer (£49.99) and Ultra Sound (£14.99). Meridian were there with Stockmarket. Plan investments and keep a close and careful watch on their progress for £29.95.

Bedford firm, Hisoft, has released another in their comprehensive range of languages, Lisp. Working under CPM, it costs £49.95.

KDS, of 8-bit printer port fame, has two existing projects under development: a 5.25 inch double sided, double density disk drive giving 706k space per disk. Projected cost will be £129.95. A low cost hard disk is also in the offing. Available in 5, 10 and 20 Megabyte models, the starting price is £199.95.

Get ready for the next show. Due for the 28th, 29th and 30th of January 1988 it will take place at the Great Hall in Alexandra Palace, London. See you there.

Hisoft ☎ 0525 718181
The Old School, Greenfield, MK45 5DE

KDS Electronics ☎ 04853 2076
15 Hill Street, Hunstanton, Norfolk

Meridian Software ☎ 01 8507057
38 Balcaskie Rd, London, SE9 1HQ

Siren Software ☎ 061 2281831
2-4 Oxford Rd, Manchester M1 5QE

Teletext action

Page your Oracle and receive Amstrad Action Type-Ins. Starting next month the major Type-In featured in each issue of Amstrad Action can be downloaded from Oracle's Telesoftware service. What's needed is a Teletext adaptor and tuner. The software can be found within Oracle (the Channel 4 broadcast) under 4-Tel (page 460). The service is free.

A kick is as good as a punch

Bangkok Knights is a beat-em-up from System 3 based on Thai boxing. The game starts on a cliff edge and the player must fight his way through a jungle and onto the streets of Bangkok. When the street fighters have been defeated the action enters the Lumpini Stadium where the masters of the sport, the Bangkok Knights, await. Priced at £9.99 on tape and £14.99 on disk.

Chomp, chomp

Ever wanted to be a monster? Now's the chance because Activision are converting the Bally/Midway arcade game *Rampage*. The game features building-climbing, people-eating, generally quite unpleasant monsters. The National Guard try to stop them from destroying America. There are three monsters to choose from: George, a huge gorilla, Lizzie, a godzilla look-alike and Ralph, an overgrown wolf-man. Destroy the world from December onwards for £9.99 on tape and £14.99 on disk.

Galactic Games lets you wriggle your way through a series of sporting events, in an attempt to become intergalactic vermicular champion. Take part in the 100m slither, space hockey, psychic judo, head throwing and the metamorph marathon. Squirm to fame in October for £9.99 on tape and £14.99 on disk.



Once bitten

First Byte Software, a company new to the Amstrad scene, is releasing the *Address System* – a package capable of holding over 3000 names, addresses and telephone numbers. The *Address System* boasts rapid search, replace and edit functions, friendly set-up procedure, optional silicon disk storage, software printer buffer and user-definable label printing. Paul Richards at Byte commented, "The *Address System* is an ideal, competitively priced, tool for the home or small business user requiring storage and subsequent printing of addresses."

Available for the CPC 6128 (464/664 with Dk'tronics expansion ram), the *Address System* sells for £14.95 on disk and £24.95 on rom. More from First Byte on 0935 851265.

More style

Seven Stars, of *Qualitas* (a print enhancement package) fame, is producing the *Qualitas Display Pack*. This supplies the existing *Qualitas* system with 10 extra decorative fonts. The fonts are all 8-bit which means an 8-bit printer port must be plugged into the computer – available from Seven Stars on 06284 3445 at £19.55. Pack price is £9.95.

Create a character

Ramasoft has just finished work on *Font Master*. Badged as a comprehensive, user-friendly character set designer it costs £8.50 on cassette and £11.50 on disk. According to Rama, up to four characters can be designed at once and each may be mirrored, inverted or scrolled. Included is a simple text editor for testing the new characters. Ramasoft also claim a first: *Font Master* saves character definitions as standard Basic SYMBOL commands within a short Basic program. Ramasoft are on 0763 43715.

Plus program

Speedtrans Plus is the latest product from Hertfordshire-based firm, Goldmark Systems. It's a tape to disk transfer utility, a much tweaked version of their earlier releases. Available on disk only at £12.99 for the 6128 (466/664 with memory upgrade).

Joystick capers

Konix are putting together a new version of their waggle-machine, the Speed King joystick. The original stick will be sold for £11.99 (£1 off its usual price) and comes bundled with the Gremlin game *Thing Bounces Back*. The new stick which features an auto-fire option sells for £12.99. Pick a stick on 049525 5913.

More coin-op conversions

Two more arcade conversions are due from Electric Dreams in the next few months, *Super Hang-On* and *Firetrap*.

Super Hang-On is a motorbike racing game which gives an on-the-bike view of the track, as it races around four continents. There are four skill levels to choose from ranging from beginner to expert. If it's as good as the arcade game then it should be well worth a look. End of November is the release date.

In *Firetrap* burning skyscrapers have to be put out and the inhabitants rescued. Falling objects and other obstacles make the task more difficult and the ground is a long way down. Supposedly in the shops in November at £9.99 on cassette and £14.99 on disk.

Maximum joy

Miracle Technology, modem manufacturer, is making the *Modem Maximiser*, a product that offers enhanced capabilities to all existing modems. *Maximiser* comes either as stand alone (£225 excluding VAT) or with data encryption (£324 excluding VAT) – the ability to encode important data.

Maximiser features include error correction for Xmodem, EPAD and MPAD (Miracle standard), data compression (which speeds data throughput), a 16k battery-backed data store and printer port allowing you to have hard copies of incoming messages. More from Miracle on 0473 216141.



Campaign for real time

Rainbird are to bring out three more games for Amstrad in the coming months: *Time and Magik*, *Carrier Command*, and *Jinxter*. *Carrier Command* is programmed by Realtime Software – the people who created *Starstrike II* – and involves controlling a futuristic aircraft carrier armed with tanks, lasers, missiles and ,of course, aircraft. The game boasts solid 3D graphics and arcade action with tactical warfare. It should be out before Christmas and cost £14.95 on tape and £19.95 on disk.

Jinxter is the latest Magnetic Scrolls adventure, their previous games including *The Pawn* and *Guild of Thieves*. There'll be the usual spectacular graphics and fiendishly difficult puzzles. The story goes that luck is running out in the land of Aquitania; the luck must be restored by re-building the charm bracelet which the Green Witches have dispersed throughout Aquitania. The game will be available on disk only for the 6128. Cost is £19.95.

Time and Magik is a compilation of past Level 9 adventures: *Lords of Time*, *Red Moon* and the *Price of Magik*. In *Lords of Time* the evil time lords have to be defeated through nine periods of past, present and future history. *The Price of Magik* is a sequel to *Red Moon*. In the original the player has to find the Red Moon crystal, and in the sequel must defeat Myglar before he drains it of it's power. *Time and Magik* has digitised graphics on the disk version and is priced at £19.95. The cassette costs £14.95. Both versions are due for December release.

Oriental Colossus

CDS, who produced *Colossus Chess* and *Colossus Bridge*, are adding the game of *Mah-Jong* to their list. Surprisingly it is called *Colossus Mah-Jong*. The player is the east wind against the three computer opponent winds. A tutorial session is included in the package so new players to the game should have no problems. Nine levels of difficulty will give even the most advanced players a challenge we're told. £9.99 for the tape, £14.99 for the disk.

The Blue Ribbon label, a CDS offshoot, is set to release several games before Christmas. They are *Pool*, *Golf*, *Video Card Arcade* and *Dominoes*. All priced at £1.99 on cassette.



Da-dum, da-dum, etc

The Pink Panther and Tom and Jerry are soon to be seen capering across computer screens. Ariolasoft and Magicbytes have a licensing deal for both cartoons, the games should appear early next year.

Western Games and *Clever & Smart* are two more Ariolasoft titles released soon. *Western Games* is a sport simulation with a difference. It features arm wrestling, tobacco spitting, cow milking, beer shooting (what a waste!), eating beans and the can can.

Clever & Smart are private detectives who must free Dr Bakterius. Hidden clues help to solve the case. Both games cost £9.99 on tape and £14.99 on disk.

Smarter than the average bear

Yogi Bear, from Piranha, is on the lookout for picnic baskets this winter. The story goes that Boo Boo has been beamapped by a blood-thirsty hunter, who has hidden him somewhere in Jellystone Park. Yogi must find him and keep his energy topped up by regular visits to pick-a-nick baskets. People and animals all do their best to get in Yogi's way. £9.95 on tape and £14.95 on disk.

Gunboat involves a top secret gunboat on a mission to penetrate a network of islands held by enemy forces. Expected soon at £8.95 on cassette and £13.95 on disk.

*Trapdoor's*Berk returns to the computer screen in *Through the Trapdoor*. This time Berk and Drutt are attempting to rescue Boni from the Gloomy depths. £8.95 on tape and £13.95 on disk.

Another character from 2000AD is due to make an appearance on the micro. Judge Anderson, the Psi-Judge, must battle it out with the four Dark Judges – Death, Fear, Fire and Mortis. They are here to wipe out anything that is living and to finish off their arch enemy. **Judge Death** is due out soon at £9.95 on cassette and £14.95 on disk.



They've shot R2

With the help of R2D2 the Empire can soon be defeated again, in the arcade conversion of *Star Wars*. November will see the game in the shops, we're told at £9.95 on tape and £14.95 on disk. Watch this space next year for release details of *The Empire Strikes Back* and *Return of the Jedi*.

TV Games

Domark have launched a new label specialising in TV game shows. The first titles are: a new version of *Blockbusters*, *The Krypton Factor*, *Countdown*, *Bullseye* and *Treasure Hunt*. The first two games are *Blockbusters* and the *Krypton Factor* which should be on the streets shortly. All TV Games cost £7.95 on tape.

Hewson's compilation

Hewson are releasing a compilation in time for Christmas featuring two Mastergames, a Rave and a new title to the Amstrad. The Mastergames are *Exolon* and *Ranarama*, *Zynaps* is the Rave and *Uridium Plus* the new game. The original *Uridium* was a fast scrolling shoot-em-up on the Commodore. This looks to be a pack worth getting at £9.95 on tape and £14.95 on disk.

Intelligent music

A new piece of music software, the *Mastercomposer* from Westhill Music, is supposed to bash out melodies in three-part harmony. No need to enter a single note either. Just select from ten music types and let the computer do the rest. Programmed by Brian James, author of the intriguing *Landscape Creator*, it costs £49 (£15 for the pocket version). Details from Westhill Music, 75 Beech Road, Westhill, Aberdeenshire, AB3 6WR. Phone 0224 740412.

Smelly software

Streetwise, whose previous Amstrad release was *Kat Trap*, have a new game called *Sewer*. The idea is to control a droid called the Manipulator. The task is to rescue workmen who have become trapped in an underground labyrinth of sewers. It features a variety of nasties ranging from giant slugs and snails, to razor-toothed fish and acid. £7.95 on tape.



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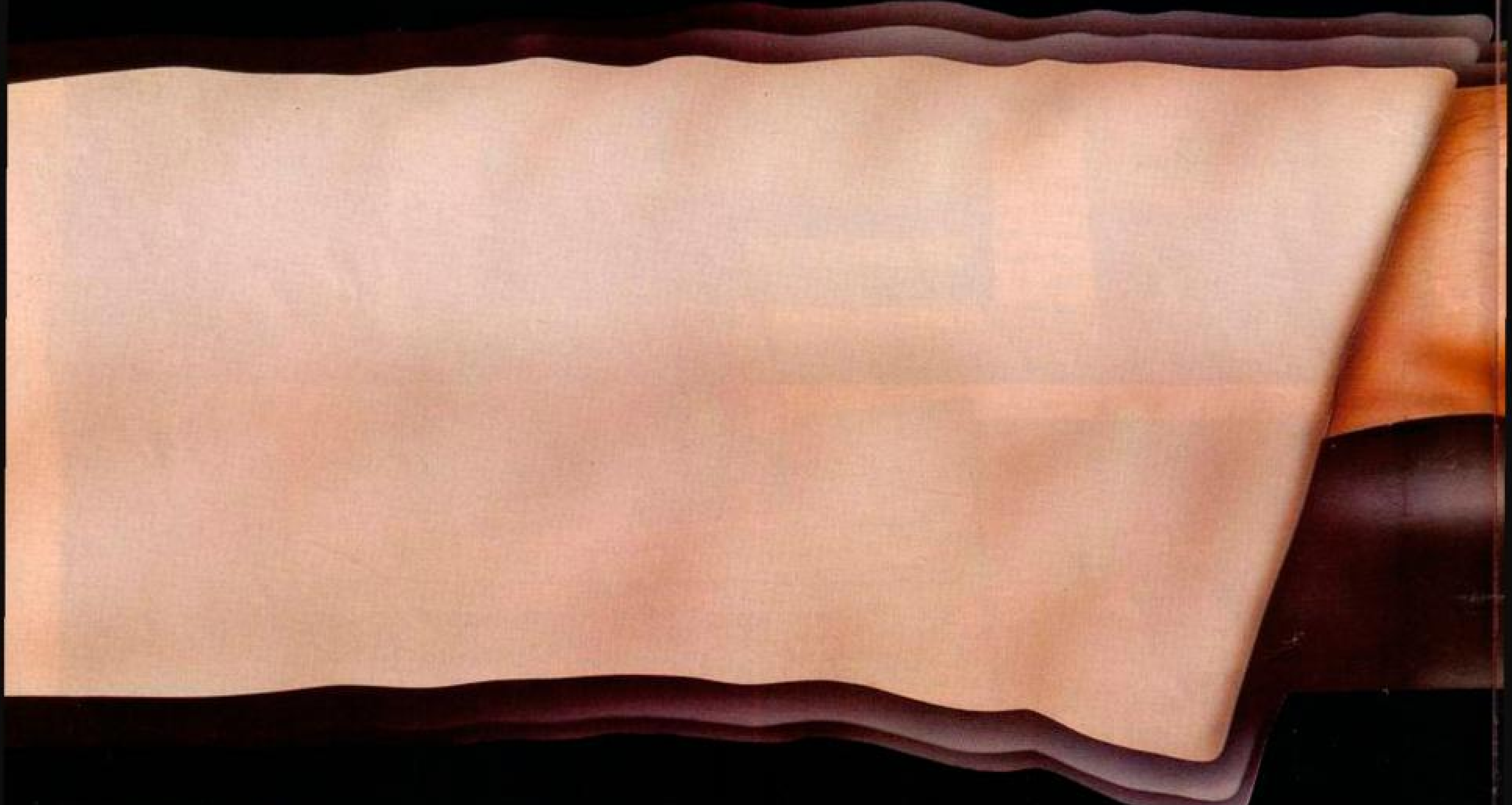
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*Recommended retail prices including VAT, DMP 3160 – £228.85, DMP 4000 – £401.35. Prices correct at 1-9-87 but may change without notice.

AMSTRAD

Amstrad plc., PO Box 462, Brentwood, Essex CM14 4EF. Telephone: (0277) 262326.

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TYPE-INS

Program made plain

Discover a program's secrets: how it works, improvements that can be made and techniques worth remembering. How would you like to add special effects to your screen images? Find out how with Peter Featherstone's incredible listing.

SPHERISCREEN



Peter Featherstone from Leeds, has written a spectacular program that takes a normal screen and distorts it in several ways. The effects are similar to those achieved on the Quantel graphics computer used by television companies to produce video effects. The screen, once loaded, can be folded or rolled into a sphere or cone and subsequently saved.

As it stands Spheriscreen will only run on 664 and 6128 machines. To get it running on a 464 simply alter all occurrences of **POKE &B7C6,192** to **POKE &B1CB,192**. Similarly change **POKE &B7C6,64** to **POKE &B1CB,64**.

```
1 ' Spheriscreen
2 ' by Peter Featherstone
3 ' Amstrad Action  December 87
10 ' If ESC pressed and cursor doesn't appear, press f0
20 KEY 0,"POKE &B7C6,192"+CHR$(13):MODE 2
30 PRINT "WHICH TYPE OF EFFECT DO YOU WANT ?":PRINT:PRINT
40 PRINT "1) Horizontal Wave":PRINT "2) Vertical Wave"
50 PRINT "3) Sphere":PRINT "4) Cone":PRINT:INPUT type
60 IF type<1 OR type>4 THEN GOTO 20
```

Notice the manner in which Peter tests for a key press. Lines 30 to 50 print the options, the end of line 50 waits for your input and line 60 checks that you haven't typed anything but a number between 1 and 4.

```
70 '*** SET UP COLOURS AND LOAD SCREEN ***
80 'These will need to be altered depending on
90 'the screen you are loading. All routines
100 'have been written for MODE 0 screens but
110 'can be converted for the other two Modes.
120 '
130 BORDER 0:MODE 0:RESTORE 150
140 FOR f=0 TO 15:READ a:INK f,a:NEXT f
150 DATA 0,2,26,16,24,8,18,11,7,10,3,6,15,13,20,14
```

Spheriscreen has been programmed to work in Mode 0. This means 16 colours may be allowed on screen in one go. Line 140 reads each DATA item held in line 150 and changes colour accordingly. You may substitute the colours of your choice. The first number refers to ink pot one, the second to ink pot two and so on. The User Instructions contain a list of all the colours and their corresponding colours.

```
160 '** Load Screen into address &4000 **
170 MEMORY &3FFF:LOAD "SCREEN",&4000
```

Line 170 loads the screen of your choice into memory location 16384 (&4000). Don't forget to place the desired filename between the quotes in line 170.

```
180 ON type GOTO 190,260,330,450
```

Peter has made clever use of the GOTO command in the line above. The line the program branches to depends on the value: 1 and it goes to line 190, 2 and it's off to 260...

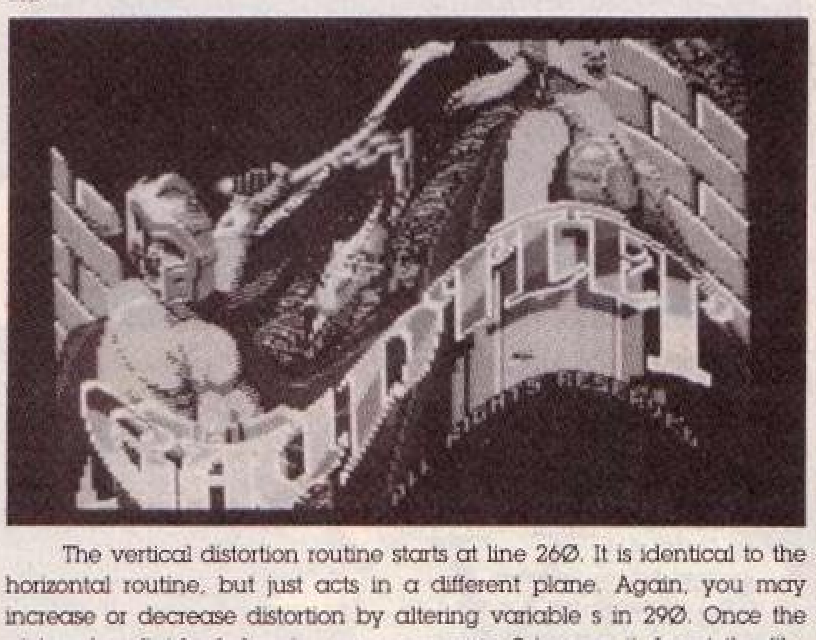
Horizontal manoeuvres

The CPC screen can have a maximum of 640 pixels across by 200 down. Mode 0 has 160 by 200 dots. In each Mode the addressing system is the same. The STEP in line 200 accounts for the horizontal resolution. Similarly for the vertical resolution in line 210.

The screen being manipulated is stored, out of view, at address &4000. Each pixel on the lower screen is TESTed and then replotted on the upper screen, but in a different position (depending on the effect chosen). When the computer TESTs a pixel it must do it on the screen held lower in memory. To fool the computer into thinking the actual screen is low down a POKE is used. All screen operations will now take place on the lower image. Once the screen has been TESTed a second POKE is issued. This tells the system that the screen is back in its original position.

If you wish to distort the screen by different horizontal amounts try altering the variable s and its step rate (line 200). You could also alter the logarithmic function in line 220.

```
190 '*** Horizontal Wave ***
200 DEG:s=180:FOR f=0 TO 636 STEP 4:s=s+2.25
210 FOR g=0 TO 398 STEP 2:POKE &B7C6,64:t=TEST(f,g)
220 POKE &B7C6,192:PLOT f,g+(100*SIN(s)),t:NEXT g,f
230 IF INKEY(60)=0 THEN SAVE "HWAVE",b,49152,16384:END
240 GOTO 230
250 '
```



The vertical distortion routine starts at line 260. It is identical to the horizontal routine, but just acts in a different plane. Again, you may increase or decrease distortion by altering variable s in 290. Once the picture has finished drawing you may press S to save it. Insert the filename in line 300. The same goes for all the routines.

```
26Ø '*** Vertical Wave ***
27Ø DEG:FOR f=Ø TO 638 STEP 4:s=Ø:FOR g=Ø TO 398 STEP 2
28Ø POKE &B7C6,64:t=TEST(f,g):POKE &B7C6,192
29Ø PLOT f+1ØØ*SIN(s),g,t:s=s+2.7:NEXT g,f
3ØØ IF INKEY(6Ø)=Ø THEN SAVE "VWAVE",b,49152,16384:END
31Ø GOTO 3ØØ
32Ø '
```

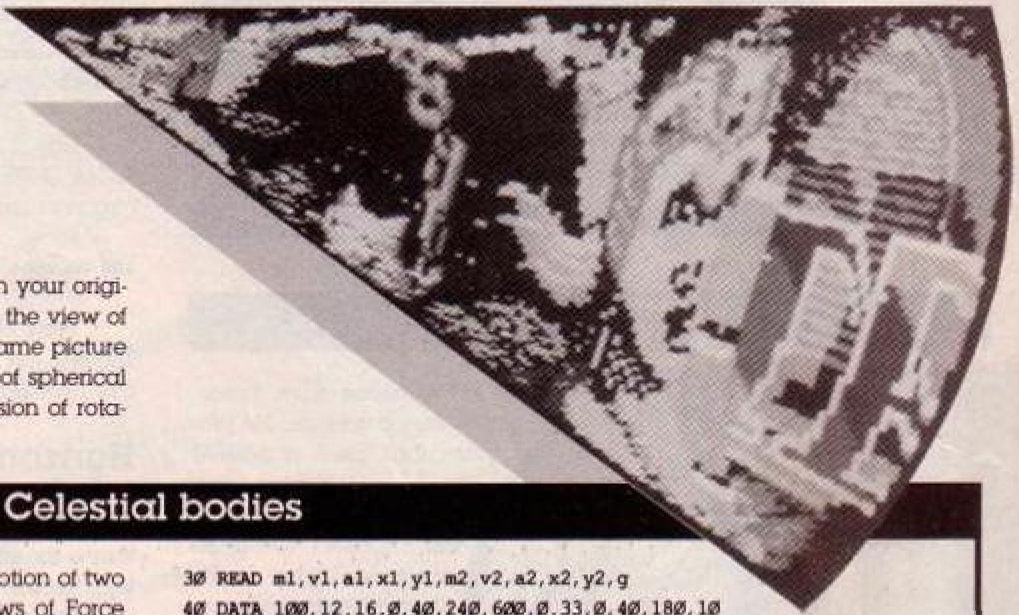
Bubble trouble

```
33Ø '*** Sphere ***
34Ø DEG
35Ø x=16Ø:y=Ø: 'Changing X will alter the view of the sphere
36Ø FOR f=9Ø TO 27Ø STEP 2.25:y=Ø:FOR g=18Ø TO 36Ø STEP 1.111
37Ø POKE &B7C6,64:t=TEST(x,y):POKE &B7C6,192:rx=18Ø*SIN(f)
38Ø PLOT 32Ø+rx*SIN(g),2ØØ+18Ø*COS(g),t
39Ø DRAWR Ø,4,t:DRAWR 4,Ø,t:DRAWR Ø,-4,t:y=y+2:NEXT g
4ØØ x=x+4:IF x>636 THEN x=x-636
41Ø NEXT f
42Ø IF INKEY(6Ø)=Ø THEN SAVE "SPHERE",b,49152,16384:END
43Ø GOTO 42Ø
44Ø '
```

A clever piece of mathematics in lines 37Ø and 38Ø turn your original picture into a sphere. By altering variable x you can alter the view of the sphere. If you ran the program several times – using the same picture – altering x by a little each time you could save a sequence of spherical screens and then re-display them quickly to give the impression of rotation.

```
45Ø '*** Cone ***
46Ø DEG:ra=2:FOR f=4Ø TO 54Ø STEP 4:g=Ø
47Ø FOR r=Ø TO 359 STEP 1.8:POKE &B7C6,64:t=TEST(f,g)
48Ø POKE &B7C6,192:PLOT f+ra*SIN(r),2ØØ+(ra*2.5)*COS(r),t
49Ø DRAWR Ø,-4,t:DRAWR 4,Ø,t:DRAWR Ø,4,t:g=g+2:NEXT r
5ØØ ra=ra+Ø.5:NEXT f
51Ø IF INKEY(6Ø)=Ø THEN SAVE "CONE",b,49152,16384:END
52Ø GOTO 51Ø
```

Each distorted image takes anything from half-an-hour to produce. A long time to wait, but the results are astounding. Just look at the pictures on the cover and this page. Can anyone produce a speedy machine code version?



Celestial bodies

This program, by **Liaket Ali** in Leicester, demonstrates the motion of two bodies under the influence of gravity. It uses Newton's laws of Force and Motion to plot the path of two objects. The listing can show such things as the capture of one astronomical body by another, orbits of satellites and the behaviour of binary stars – it all depends on the data fed to it.

When the program is run you are asked to press Y if you wish to input data. Any other key and the default data is used. This demonstrates the orbits between the Earth and Moon. The red line is the path of the moon.

If you pressed Y then try the data provided before entering your own: it will give you an idea of what is required.

Binary stars

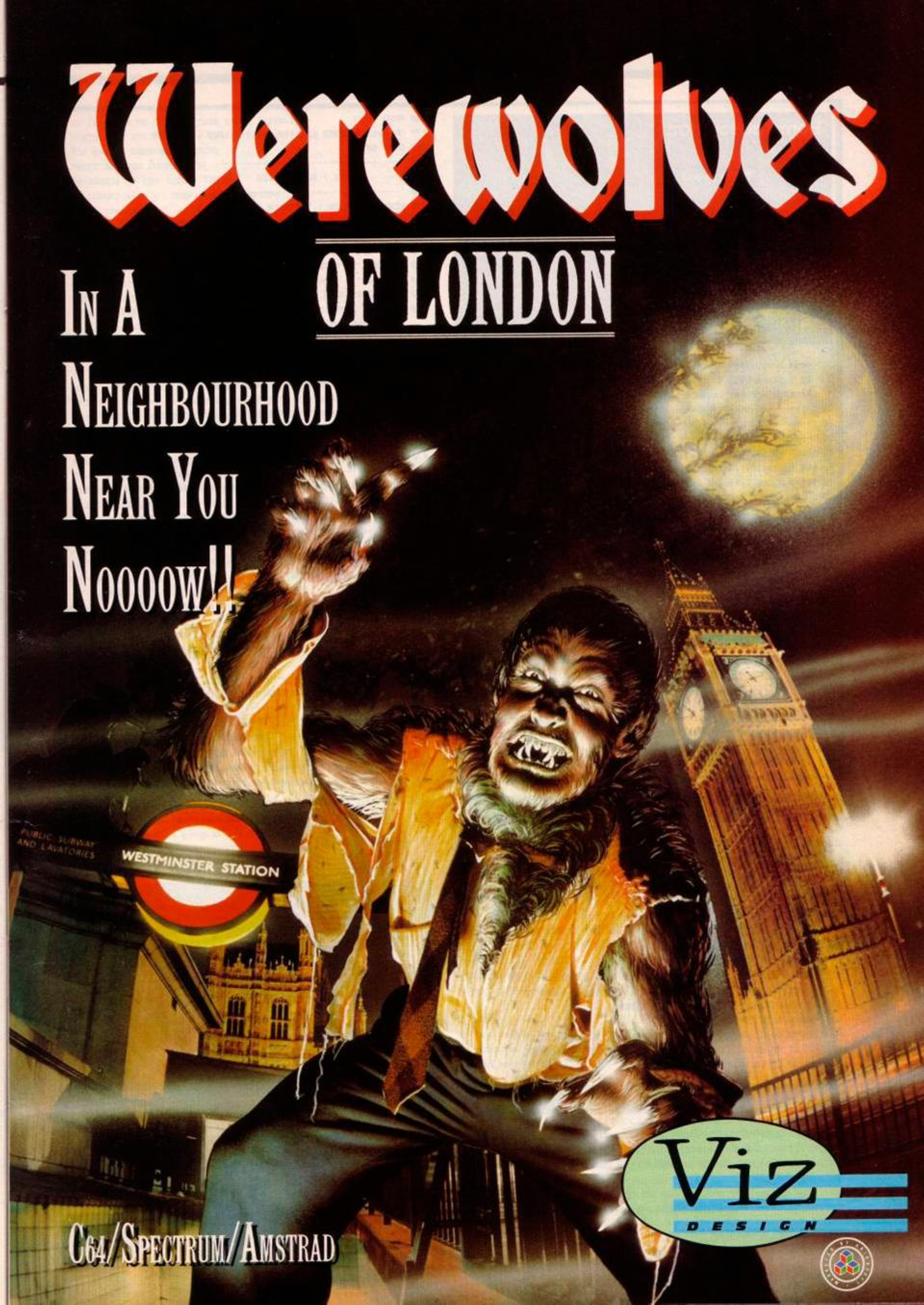
			Anti-gravity	
Mass	1ØØ	5Ø	1ØØ	1ØØ
Velocity	1.49	2.98	4	4
Acceleration	Ø	18Ø	-45	135
X	32Ø	32Ø	5Ø	2ØØ
Y	17Ø	1ØØ	15Ø	3Ø
Gravity	1Ø		-7	

This is a binary star simulation. One star is larger than the other. Each star has the required velocity for a circular orbit around a common centre of gravity.

The second group of figures show what happens when the force of gravity is repulsive instead of attractive. It shows two equal bodies approaching each other – both bodies then move away from each other due to the effects of anti-gravity.

The angles are in degrees; Ø being east. The X and Y co-ordinates refer to the initial screen positions of the two bodies. The value for X should be between Ø and 64Ø; Y should be between Ø and 27Ø. Plotting is slow as Basic has several hundred calculations to perform.

```
1 ' Celestial bodies
2 ' by Liaket Ali
3 ' Amstrad Action December 87
1Ø MODE 1:BORDER Ø:INK Ø,Ø:INK 1,26
2Ø REM Data for Earth-Moon orbit
3Ø READ m1,v1,a1,x1,y1,m2,v2,a2,x2,y2,g
4Ø DATA 1ØØ,12.16,Ø,4Ø,24Ø,6ØØ,Ø.33,Ø,4Ø,18Ø,1Ø
5Ø rev$=CHR$(24):INPUT"Hit Y if you want to input data ",y$
6Ø IF UPPER$(y$)<>"Y"THEN GOTO 18Ø
7Ø MODE 1:PRINT TAB(12);rev$+SPACE$(18)+rev$
8Ø PRINT TAB(12);rev$+" Celestial Bodies "+rev$
9Ø PRINT TAB(12);rev$+SPACE$(18)+rev$
1ØØ LOCATE 14,5:PRINT"By Liaket Ali."
11Ø WINDOW 1,4Ø,7,25:PRINT rev$+"First body"+rev$:PRINT
12Ø INPUT"Mass     :",m1:INPUT"Velocity:",v1:
13Ø INPUT"Angle    :",a1:INPUT"X co-ord:",x1
14Ø INPUT"Y co-ord:",y1:CLS:PRINT rev$+"Second body"+rev$
15Ø PRINT:INPUT"Mass     :",m2:INPUT"Velocity:",v2
16Ø INPUT"Angle    :",a2:INPUT"X co-ord:",x2
17Ø INPUT"Y co-ord:",y2:CLS:INPUT"Gravity :",g
18Ø MODE 1:PRINT STRING$(4Ø,143):WINDOW 1,4Ø,1,8
19Ø PRINT rev$+" Body"," First"," Second"+rev$
2ØØ PRINT" Mass      :",m1,m2:PRINT" Velocity :",v1,v2
21Ø PRINT" Angle     :",a1,a2:PRINT" X co-ord :",x1,x2
22Ø PRINT" Y co-ord :",y1,y2:PRINT" Gravity  :",g
23Ø dt=Ø.1:a1=a1*PI/18Ø:a2=a2*PI/18Ø:x1=x1+1Ø:x2=x2+1Ø
24Ø REM U.D.G. for planets
25Ø SYMBOL 255,126,129,129,129,129,129,129,126
26Ø PLOT 1ØØØ,1ØØ,1:ORIGIN Ø,Ø,Ø,639,27Ø,Ø
27Ø ORIGIN Ø,Ø,Ø,639,27Ø,Ø
28Ø MOVE x1-8,y1+8:TAG:PRINT CHR$(255);
29Ø MOVE x2-8,y2+8:PRINT CHR$(255);:TAGOFF
3ØØ v1x=v1*COS(a1):v2x=v2*COS(a2):v1y=v1*SIN(a1)
31Ø v2y=v2*SIN(a2)
32Ø fg=g*m1*m2/((x2-x1)*(x2-x1)+(y2-y1)*(y2-y1))
33Ø IF x2=x1 THEN phi=PI/2:GOTO 35Ø
34Ø phi=ATN(ABS((y2-y1)/(x2-x1)))
35Ø f1x=fg*COS(phi)*SGN(x2-x1):f2x=-f1x
36Ø f1y=fg*SIN(phi)*SGN(y2-y1):f2y=-f1y
37Ø a1x=f1x/m1:a2x=f2x/m2:s1x=v1x*dt+a1x*dt*dt/2
38Ø s2x=v2x*dt+a2x*dt*dt/2:v1x=v1x+a1x*dt:v2x=v2x+a2x*dt
39Ø a1y=f1y/m1:a2y=f2y/m2:s1y=v1y*dt+a1y*dt*dt/2
4ØØ s2y=v2y*dt+a2y*dt*dt/2:v1y=v1y+a1y*dt:v2y=v2y+a2y*dt
41Ø PLOT x1,y1,3:PLOT x2,y2,2
42Ø x1=x1+s1x:x2=x2+s2x:y1=y1+s1y:y2=y2+s2y
43Ø GOTO 32Ø
```


Werewolves
OF LONDON
IN A
NEIGHBOURHOOD
NEAR YOU
NOOOOW!!
PUBLIC SUBWAY
AND LAVATORIES
WESTMINSTER STATION
Viz
DESIGN
C64/SPECTRUM/AMSTRAD

Home accountant

Rather than lashing out for an accounts package or spreadsheet why not try **T Blackwood**'s listing? Mr Blackwood from Edinburgh has written an excellent accounts package – ideal for small business or home user.

From the options menu you can create or add to a file (enter details of the transaction, the date, and the amount credited or debited to the account), load and save files, delete invalid entries and send account details to either screen or printer.

The Home Accountant only has room to store a 1ØØ entries per month, but this is adequate for most purposes. If you need larger storage capacity then you can increase the value held in the arrays (line 5Ø).

```
1 ' Home Accountant
2 ' by T Blackwood
3 ' Amstrad Action  December 87
1Ø '-------------------------
2Ø '-------  MENU -----------
3Ø '-------------------------
4Ø SPEED WRITE 1
5Ø DIM text$(1ØØ),date$(1ØØ),db(1ØØ),cr(1ØØ):c=Ø:bal=Ø
6Ø INK Ø,Ø:INK 1,13:INK 2,26:INK 3,6:BORDER Ø
7Ø MODE 1:PAPER Ø:PEN 3:LOCATE 1,1
8Ø PRINT CHR$(212);STRING$(38,2Ø8):FOR L=2 TO 23:LOCATE 1,L
9Ø PRINT CHR$(211):LOCATE 4Ø,1:PRINT CHR$(213):LOCATE 4Ø,L
1ØØ PRINT CHR$(2Ø9):NEXT:LOCATE 1,24
11Ø PRINT CHR$(215);STRING$(38,21Ø);CHR$(214):LOCATE 5,3
12Ø PEN 2:PRINT"HOME ACCOUNTANT ";CHR$(164);"1987 T.BLACKWOOD"
13Ø WINDOW #1,7,34,7,21:PAPER #1,2:PEN #1,3:CLS #1
14Ø PRINT#1:PRINT #1,TAB(3);"Create/Add to file.....C"
15Ø PRINT #1:PRINT #1,TAB(3);"Load existing file.....L"
16Ø PRINT #1:PRINT #1,TAB(3);"Delete from file.......D"
17Ø PRINT #1:PRINT #1,TAB(3);"View file..............V"
18Ø PRINT #1:PRINT #1,TAB(3);"Save file..............S"
19Ø PRINT #1:PRINT #1,TAB(3);"Output to printer......O"
2ØØ PRINT #1:PRINT #1,TAB(3);"Start NEW Month........N"
21Ø PAPER 2:PEN Ø:LOCATE 5,23
22Ø PRINT" Press key for choice required: ":PAPER Ø:PEN 1
23Ø ANS$="CLDVSON"
24Ø option=Ø:WHILE option=Ø:k$=INKEY$
25Ø IF k$>"" THEN option=INSTR(ans$,UPPER$(k$))
26Ø WEND
27Ø ON option GOSUB 29Ø,46Ø,62Ø,81Ø,1ØØØ,115Ø,138Ø
28Ø GOTO 6Ø
29Ø '--------------------------------
3ØØ '---   CREATE / ADD TO FILE   ---
31Ø '--------------------------------
32Ø WINDOW #1,1,2Ø,1,5:WINDOW #2,1,4Ø,6,25
33Ø WINDOW #3,21,4Ø,1,5:PAPER #1,1:PAPER #2,Ø:PAPER #3,Ø
34Ø PEN #1,Ø:PEN #2,1:PEN #3,1:CLS #1:CLS #2:CLS #3
35Ø PRINT #1,"   Please Enter:":PRINT#1,"   DETAILS:"
36Ø PRINT#1,"   DATE:":PRINT#1,"   amount DEBITED:"
37Ø PRINT#1,"   amount CREDITED:"
38Ø PRINT#2:PRINT#2,"Max (17) characters:-":PRINT#2
39Ø INPUT#2,"DETAILS : ",text$(c+1):IF LEN(text$(c+1))>17
    THEN PRINT"INVALID ENTRY";CHR$(7):FOR T=1 TO 3ØØØ:
    NEXT:GOTO 32Ø ELSE GOTO 4ØØ
4ØØ INPUT#2,"DATE    : ",date$(c+1)
41Ø INPUT#2,"DEBIT   : ",db(c+1):INPUT #2,"CREDIT  : ",cr(c+1)
42Ø c=c+1:PRINT#3:PRINT#3,"  Add another item:"
43Ø PRINT#3:PRINT#3,"        (y/n)"
44Ø a$=INKEY$:IF a$="" THEN 44Ø
45Ø IF LOWER$(a$)="y" THEN CLS #2:CLS#3:GOTO 38Ø ELSE RETURN
46Ø '--------------------------------
47Ø '---    LOAD EXISTING FILE    ---
48Ø '--------------------------------
49Ø CLS:LOCATE 3,6:PRINT STRING$(28,"_"):LOCATE 3,8
5ØØ PRINT STRING$(28,"_")
51Ø LOCATE 3,1Ø:PRINT"LOAD FILE:";:PAPER 1:PEN Ø
52Ø PRINT"are you sure (y/n)":PAPER Ø:PEN 1
53Ø LOCATE 3,12:PRINT STRING$(28,"_"):LOCATE 3,14
54Ø PRINT STRING$(28,"_")
55Ø a$=INKEY$:IF a$="" THEN 55Ø
56Ø IF LOWER$(a$)="y" THEN 57Ø ELSE RETURN
57Ø LOCATE 1Ø,16:INPUT "Name of file ";fi$:PRINT:PRINT
58Ø fi$=fi$:OPENIN fi$:c=1
59Ø WHILE EOF=Ø:INPUT #9,text$(c):INPUT #9,date$(c)
6ØØ INPUT #9,db(c):INPUT #9,cr(c):c=c+1:WEND
61Ø CLOSEIN:RETURN
62Ø '--------------------------------
63Ø '---     DELETE FROM FILE     ---
64Ø '--------------------------------
65Ø MODE 2:FOR n=1 TO c
66Ø PRINT n;" ";text$(n);" ";date$(n);" ";db(n);" ";cr(n)
67Ø NEXT n
68Ø PRINT:INPUT "Enter item to be removed: ",item%
```

Paper change

The listing below by **Shabaz Yousaf** from Slough, introduces an RSX (bar command) to the system. Entering |CHANGEPAPER alters the paper colour without clearing the screen. Issue the command twice and the screen reverts back to normal.

```
1 ' Paper change
2 ' by Shabaz Yousaf
3 ' Amstrad Action December 87
1Ø ' To load the Binary Code:
2Ø ' MEMORY &5ØØØ:LOAD"CPAPER.BIN",&5ØØØ:CALL &5ØØØ
3Ø FOR i=&5ØØØ TO &5Ø2C:READ a$:POKE i,VAL("&"+a$):NEXT
4Ø SAVE"CPAPER.BIN",b,&5ØØØ,45:CALL &5ØØØ
5Ø |CHANGEPAPER:|CHANGEPAPER:END
6Ø DATA ØØ,ØØ,ØØ,ØØ,21,ØØ,5Ø,Ø1,ØE,5Ø,CD,D1,BC,C9,15,5Ø,C3
7Ø DATA 21,5Ø,ØØ,ØØ,43,48,41,4E,47,45,5Ø,41,5Ø,45,D2,ØØ,21
8Ø DATA ØØ,CØ,7E,2F,77,23,7D,B4,2Ø,F8,C9
```

Data maker

Here is a wonderful routine that converts binary into lines of Basic DATA – it adds a checksum at the end of DATA lines and includes a few lines to poke the code back into the computer. **HE Haxwell** from Hertfordshire is the man to thank.

The routine will prompt you for a filename (this being the Basic saved file), the start and end address of you machine code data, the first line you wish the DATA to start on and the number of DATA items per line. It is fast, friendly and works a treat.

```
1 ' Data maker
2 ' by HE Haxwell
3 ' Amstrad Action December 87
1Ø MODE 1:MEMORY &3FFF
2Ø INPUT" NAME FOR ASCII FILE ",N$:n$=UPPER$(N$)
3Ø OPENOUT N$+".ASC":name$=n$+".ASC"
4Ø INPUT" START ADDRESS:-&",AD$:AD=VAL("&"+AD$)
5Ø INPUT" LAST  ADDRESS:-&",AD2$:AD2=VAL("&"+AD2$)
6Ø INPUT" FIRST LINE No. ",L:L1=L
7Ø INPUT" No. of DATA STATEMENTS per line:-",n
8Ø INK 2,3,22:PEN 2:PRINT:PRINT" SAVING "+NAME$
9Ø FOR A=AD TO AD2 STEP N:PRINT#9,STR$(L);" DATA ";
1ØØ cs=Ø:PRINT#9,HEX$(PEEK(A),2);:cs=cs+PEEK(a)
11Ø FOR X=1 TO N-1
12Ø IF A+X>AD2 THEN PRINT#9,",";HEX$(cs,3):GOTO 15Ø
13Ø PRINT#9,",";HEX$(PEEK(A+X),2);:cs=cs+PEEK(a+x):NEXT
14Ø PRINT#9,",";HEX$(cs,3);:PRINT#9,:L=L+1Ø:NEXT
15Ø FOR sum=ad TO ad2:tot=tot+PEEK(sum):NEXT
16Ø PRINT#9,STR$(L);"n=";STR$(n);":a= &";ad$;":L=";
17Ø PRINT#9,STR$(L1);":WHILE L<"STR$(L);":GOSUB";STR$(L+1Ø);
18Ø PRINT#9,":WEND:GOTO";STR$(L+5Ø)
19Ø PRINT#9,STR$(L+1Ø);"cs=Ø:FOR x=1 TO n:READ v$:v=VAL(";
2ØØ PRINT#9,CHR$(34);"&";CHR$(34);"+v$):POKE a,v"
21Ø PRINT#9,STR$(L+2Ø);"cs=cs+v:a=a+1:next:read c$:c=val(";
22Ø PRINT#9,CHR$(34);"&";CHR$(34);"+c$)":PRINT#9,STR$(L+3Ø);
23Ø PRINT#9,"IF c<>cs THEN PRINT";CHR$(34);
```

```
690 IF item%<=Ø OR item%>c THEN PAPER 1:PEN Ø:
   PRINT" NOT AVAILABLE:try again.";CHR$(7) ELSE GOTO 71Ø
7ØØ FOR t=1 TO 2ØØØ:NEXT:RETURN
71Ø PRINT"ARE YOU SURE: [Y/N] ?"
72Ø k$=INKEY$:IF k$="" THEN 72Ø
73Ø IF LOWER$(k$)="y" THEN 74Ø ELSE RETURN
74Ø WHILE item%<=c
75Ø text$(item%)=text$(item%+1):date$(item%)=date$(item%+1):
   db(item%)=db(item%+1):cr(item%)=cr(item%+1)
76Ø item%=item%+1
77Ø WEND
78Ø c=c-1:PRINT "ANOTHER ITEM: [Y/N] ?"
79Ø k$=INKEY$:IF k$="" THEN 79Ø
8ØØ IF LOWER$(k$)="y" THEN 65Ø ELSE RETURN
81Ø '--------------------------------
82Ø '---        VIEW  FILE        ---
83Ø '--------------------------------
84Ø IF fb>Ø THEN bal=Ø
85Ø MODE 2:PAPER 1:PEN Ø:BORDER 13:CLS:PRINT STRING$(8Ø,"_")
86Ø WINDOW #1,1,8Ø,6,21:PAPER #1,1:PEN #1,Ø:CLS #1
87Ø s$=SPACE$(12):PRINT"DETAILS";S$;"DATE";S$;"DEBIT";S$;
88Ø PRINT"CREDIT";S$;"BALANCE":PRINT STRING$(8Ø,"_")
89Ø FOR n=1 TO c:bal=bal-db(n)+cr(n):
9ØØ PRINT #1,TAB(1);TExt$(n);TAB(2Ø);date$(n);
91Ø PRINT #1,TAB(35);USING "####.##";db(n);
92Ø PRINT #1,TAB(52);USING "####.##";cr(n);:
93Ø PRINT #1,TAB(7Ø);USING "£####.##";bal:NEXT
94Ø fb=bal:LOCATE 55,22:PRINT STRING$(25,"_"):LOCATE 55,24
95Ø PRINT"BALANCE = ";:PRINT TAB(7Ø);USING "£####.##";fb
96Ø LOCATE 1Ø,25:PAPER Ø:PEN 1
97Ø PRINT" Press M to return to Menu: "
98Ø a$=INKEY$:IF a$="" THEN 98Ø
99Ø IF LOWER$(a$)="m" THEN RETURN ELSE 98Ø
1ØØØ '--------------------------------
1Ø1Ø '---       SAVE FILE          ---
1Ø2Ø '--------------------------------
1Ø3Ø CLS:LOCATE 3,6:PRINT STRING$(36,"_"):LOCATE 3,8
1Ø4Ø PRINT STRING$(36,"_")
1Ø5Ø LOCATE 3,1Ø:PRINT"SAVE FILE TO TAPE:";:PAPER 1:PEN Ø
1Ø6Ø PRINT"are you sure (y/n)":PAPER Ø:PEN 1
1Ø7Ø LOCATE 3,12:PRINT STRING$(36,"_")
1Ø8Ø LOCATE 3,13:PRINT STRING$(36,"_")
1Ø9Ø a$=INKEY$:IF a$="" THEN 1Ø9Ø
11ØØ IF LOWER$(a$)="y" THEN 111Ø ELSE RETURN
111Ø LOCATE 1Ø,15:INPUT "Name of file ";fi$:PRINT:PRINT
112Ø OPENOUT fi$:FOR n=1 TO c:PRINT#9,text$(n)
113Ø PRINT#9,date$(n):PRINT#9,db(n):PRINT#9,cr(n):NEXT
114Ø CLOSEOUT:RETURN
115Ø '--------------------------------
116Ø '---     OUTPUT TO PRINTER    ---
117Ø '--------------------------------
118Ø bs$=CHR$(27)+"E":bc$=CHR$(27)+"F"
119Ø dip$=CHR$(27)+"R"+CHR$(3)
12ØØ IF fb>Ø THEN bal=Ø
121Ø MODE 1:LOCATE 8,1Ø:PRINT"Printing in progress:"
122Ø PRINT#8,bs$;"HOME ACCOUNTANT"
123Ø PRINT#8,"STATEMENT OF ACCOUNT :";bc$;dip$
124Ø PRINT #8,STRING$(77,"_")
125Ø s$=SPACE$(12):PRINT #8,"DETAILS";S$;"DATE";S$;
126Ø PRINT"DEBIT";S$;"CREDIT";S$;"BALANCE"
127Ø PRINT #8,STRING$(77,"_")
128Ø FOR n=1 TO c:bal=bal-db(n)+cr(n)
129Ø PRINT #8,TAB(1);TExt$(n);TAB(2Ø);date$(n);
13ØØ PRINT #8,TAB(35);USING "####.##";db(n);
131Ø PRINT #8,TAB(52);USING "####.##";cr(n);
132Ø PRINT #8,TAB(7Ø);USING "£####.##";bal:NEXT
133Ø PRINT#8:PRINT#8
134Ø fb=bal:PRINT#8,TAB(55)STRING$(23,"_")
135Ø PRINT#8,TAB(55)"BALANCE = ";
136Ø PRINT #8,TAB(7Ø);USING "£####.##";fb
137Ø FOR t=Ø TO 3ØØØ:NEXT:RETURN
138Ø '--------------------------------
139Ø '---    START NEW MONTH       ---
14ØØ '--------------------------------
141Ø CLS:LOCATE 1Ø,1Ø:PRINT"WARNING":LOCATE 1Ø,11
142Ø PRINT"-------":LOCATE 5,15
143Ø PRINT"Starting a NEW MONTH will clear
   any     Transactions in memory:"
144Ø LOCATE 5,2Ø:PRINT"Press [C] to Continue":LOCATE 5,22
145Ø PRINT"Press [R] to Return"
146Ø a$=INKEY$:IF a$="" THEN 146Ø
147Ø IF a$="c" THEN 148Ø ELSE RETURN
148Ø MODE 2:LOCATE 5,5:PRINT"BALANCE TO CARRY FORWARD :---"
149Ø LOCATE 36,5:PRINT,USING "£#####.##";fb
15ØØ ERASE text$,date$,db,cr
151Ø DIM text$(1ØØ),date$(1ØØ),db(1ØØ),cr(1ØØ):c=Ø
152Ø LOCATE 1Ø,2Ø:INPUT "PLEASE ENTER New DATE   :",date$(c+1)
153Ø LOCATE 1Ø,23:INPUT "BALANCE TO CARRY FORWARD :",CR(C+1)
154Ø T$="BALANCE B/F":text$(c+1)=t$:fb=Ø:bal=Ø:c=c+1
155Ø RETURN
```

```
24Ø PRINT#9,"DATA ERROR IN LINE";CHR$(34);",L:END"
25Ø PRINT#9,STR$(L+4Ø);"L=L+1Ø:RETURN":PRINT#9,STR$(L+5Ø);
26Ø PRINT#9,"REM rest of program"
27Ø INK 2,2Ø:PEN 1:PRINT#9,:CLOSEOUT
28Ø MODE 2:PRINT"DONE":PRINT:LOAD name$
```

Symblaid

Unfortunately part of the listing from Program made plain. Symblaid. was eaten by Toot last month. We've forced him to regurgitate the stuff. Here it is.

The final frontier

```
52Ø PRINT #3,"For more, press [M]: or if finished, [F]":
53Ø IF INKEY(38)=-1 AND INKEY(53)=-1 THEN 53Ø
54Ø IF INKEY(53)<>-1 THEN CALL Ø
55Ø left=2
56Ø FOR c=Ø TO 19                ' Empty
57Ø CALL &BBØ9                   ' key
58Ø NEXT                         ' buffer.
59Ø GOTO 24Ø
```

Once you've finished editing all four grids you are asked whether you wish to start again or exit the program. Opting to quit the program resets the machine. The alternative choice moves you to line 56Ø. The short routine located there clears the keyboard buffer and runs the program again.

Think ahead

Donald Sharkey from Scunthorpe has written an interesting two-player strategy game. An eight by eight grid appears on screen. Each cell in the grid holds a numerical value between -9 an +9. The idea is that each player takes it in turn to select a number – the winner being the person with the most points at the end of the game.

Player one can only move horizontally along the grid while player two can move vertically. Hit the space bar to move the cursor over the numbers and return to select the number. Once a number has been chosen it will be added to a players score (or taken away if negative). By thinking several moves ahead you can force your opponent to pick lots of negative numbers and thus win the game. Good luck.

```
1 ' Think ahead
2 ' by Donald Sharkey
3 ' Amstrad Action December 87
1Ø REM set up variables and screen
2Ø MODE 1:PEN 1:PAPER Ø:DIM G(8,8):p1=Ø:p2=Ø:st=Ø:go=1
3Ø x=17:y=8:INK 2,1Ø:FOR t=1 TO 8:FOR r=1 TO 8
4Ø a=INT(RND*19)-9:G(t,r)=a:NEXT:NEXT
5Ø FOR e=1 TO 8:FOR t=1 TO 8:LOCATE 1+(t*4),e*2
6Ø PRINT G(t,e);:NEXT:NEXT:FOR t=5Ø TO 6ØØ STEP 64
7Ø PLOT t,135:DRAW t,395:NEXT:FOR t=135 TO 395 STEP 32.5
8Ø PLOT 5Ø,t:DRAW 562,t:NEXT:PAPER 1:PEN Ø:LOCATE 5,18
9Ø PRINT"THINK AHEAD by Donald Sharkey"
1ØØ PAPER Ø:INK 3,3:INK 2,1Ø
11Ø PEN 3:LOCATE 6,2Ø:PRINT"PLAYER 1=";p1
```

```
12Ø PEN 2:LOCATE 22,2Ø:PRINT"PLAYER 2=";p2
13Ø PEN 1:LOCATE 13,23:PRINT"LAST SCORE=";st
14Ø REM who's go is it?
15Ø IF go=1 THEN INK 3,3,Ø:GOTO 18Ø
16Ø GOTO 34Ø
17Ø REM player 1 routine
18Ø LOCATE x,y:PAPER 1:PEN Ø:PRINT G(x/4,y/2)
19Ø IF INKEY(47)=Ø THEN GOTO 28Ø
2ØØ IF INKEY(18)=Ø THEN GOTO 22Ø
21Ø GOTO 19Ø
22Ø p1=p1+G(x/4,y/2):st=G(x/4,y/2):G(x/4,y/2)=2Ø
23Ø PAPER Ø:PEN 1:LOCATE x,y:PRINT "***":go=2:te=Ø
24Ø y=y+2:te=te+1:IF y>16 THEN y=2
25Ø IF te=8 THEN GOTO 51Ø
26Ø IF G(x/4,y/2)=2Ø THEN GOTO 24Ø
27Ø GOTO 1ØØ
28Ø PAPER Ø:PEN 1:LOCATE x,y:PRINT G(x/4,y/2)
29Ø x=x+4:IF x>36 THEN x=5
3ØØ IF G(x/4,y/2)=2Ø THEN GOTO 29Ø
31Ø FOR K=1 TO 1ØØ:NEXT
32Ø GOTO 18Ø
33Ø REM player 2 routine
34Ø INK 2,1Ø,Ø
35Ø LOCATE x,y:PAPER 1:PEN Ø:PRINT G(x/4,y/2)
36Ø IF INKEY(47)=Ø THEN GOTO 45Ø
37Ø IF INKEY(18)=Ø THEN GOTO 39Ø
38Ø GOTO 36Ø
39Ø p2=p2+G(x/4,y/2):st=G(x/4,y/2):G(x/4,y/2)=2Ø
4ØØ PAPER Ø:PEN 1:LOCATE x,y:PRINT "***":go=1:te=Ø
41Ø x=x+4:te=te+1:IF x>36 THEN x=5
42Ø IF te=8 THEN GOTO 51Ø
43Ø IF G(x/4,y/2)=2Ø THEN GOTO 41Ø
44Ø GOTO 1ØØ
45Ø PAPER Ø:PEN 1:LOCATE x,y:PRINT G(x/4,y/2)
46Ø y=y+2:IF y>16 THEN y=2
47Ø IF G(x/4,y/2)=2Ø THEN GOTO 46Ø
48Ø FOR k=1 TO 1ØØ:NEXT
49Ø GOTO 34Ø
5ØØ REM print the winner
51Ø dif=Ø:INK 3,3:INK 2,1Ø
52Ø IF p1>p2 THEN A$="PLAYER 1 HAS WON":dif=p1-p2:GOTO 55Ø
53Ø IF p1<p2 THEN A$="PLAYER 2 HAS WON":dif=p2-p1:GOTO 55Ø
54Ø A$="IT WAS A DRAW"
55Ø WINDOW#1,2,39,2Ø,25:PAPER#1,1:PEN#1,3:q=LEN(A$):CLS#1
56Ø LOCATE#1,(38-q)/2,2:PEN#1,3:PRINT#1,A$
57Ø IF dif=Ø THEN GOTO 59Ø
58Ø LOCATE#1,12,4:PEN#1,2:PRINT#1,"BY:";dif;" POINTS"
59Ø LOCATE#1,13,6:PEN#1,Ø:PRINT#1,"PRESS 'TAB'"
6ØØ PRINT CHR$(7)
61Ø WHILE INKEY$<>CHR$(9):WEND:RUN
```

Disk map

To find out on which tracks and sectors your disk programs are situated run this program courtesy of **Andrew Toner** from Stockport. You can elect to send file details to either screen or printer.

```
1 ' Disk map
2 ' by Andrew Toner
3 ' Amstrad Action December 87
1Ø MODE 2:MEMORY &6FFF:GOSUB 51Ø:addr=&8ØØØ:oldaddr=addr
2Ø INPUT "Drive ?  (A/B) ",a$:INPUT "Printer ? (Y/N) ",p$
3Ø p$=LEFT$(UPPER$(p$),1)
4Ø IF LEFT$(UPPER$(a$),1)="A" THEN dr=Ø ELSE dr=1
5Ø ftype%=Ø:|DPB,dr,@ftype%
6Ø IF ftype%=&C1 THEN track=Ø ELSE track=2
7Ø PRINT CHR$(13);CHR$(11);CHR$(18);CHR$(11);CHR$(18);
8Ø FOR i=ftype% TO ftype%+3:|READ,dr,track,i,addr
```

Are you horrible enough to go on the



```
90 addr=addr+512:NEXT
100 '
110 addr=oldaddr
120 IF addr>=oldaddr+&800 AND p$="Y" THEN PRINT #8,
    CHR$(12);:END
130 IF addr>=oldaddr+&800 THEN PRINT CHR$(11);CHR$(11);
    CHR$(13);CHR$(18);:END
140 GOSUB 230
150 IF a=229 THEN GOTO 140
160 addr=addr+5
170 GOSUB 360
180 PRINT:PRINT:IF p$="Y" THEN PRINT#8:PRINT#8
190 GOTO 120
200 '
210 ' Print File name
220 '
230 a=PEEK(addr):IF a=229 THEN addr=addr+32:RETURN
240 IF p$="Y" THEN PRINT #8,DEC$(a,"##");
250 PRINT DEC$(a,"##");
260 IF p$="Y" THEN PRINT #8,":";
270 PRINT":";:FOR i=1 TO 8:addr=addr+1:a=PEEK(addr)
280 IF p$="Y" THEN PRINT #8,CHR$(a);
290 PRINT CHR$(a);:NEXT
300 IF p$="Y" THEN PRINT #8,".";
310 PRINT".";
320 FOR i=1 TO 3:addr=addr+1:a=PEEK(addr)
330 IF a>&80 THEN a=a-&80
340 IF p$="Y" THEN PRINT #8,CHR$(a);
350 PRINT CHR$(a);:NEXT:RETURN
360 '
370 ' Print Sectors and track
380 '
390 IF p$="Y" THEN PRINT #8,TAB(20);
400 PRINT TAB(20);:temp=addr+16:co=0
410 a=PEEK(addr)
420 IF a=0 OR addr=temp THEN addr=temp:RETURN
430 track=2*(a\9):sec=ftype%+(2*a) MOD 9
440 IF p$="Y" THEN PRINT #8,DEC$(track,"##");
450 PRINT DEC$(track,"##");
460 IF p$="Y" THEN PRINT #8,"/";HEX$(sec,2);" ";
470 PRINT"/";HEX$(sec,2);" ";:co=co+1
480 IF co=10 AND p$="Y" THEN PRINT #8:PRINT #8,TAB(20);
490 IF co=10 THEN PRINT:PRINT TAB(20);:co=0
500 addr=addr+1:GOTO 410
510 '
520 ' Read in and call RSXS
530 '
540 FOR i=&7000 TO &70AB:READ a$:a=VAL("&"+a$):POKE i,a
550 NEXT:CALL &7000:RETURN
560 '
570 DATA 3A,B0,70,FE,01,C8,3E,01,32,B0,70,21,AC,70,01,15
580 DATA 70,CD,D1,BC,C9,1D,70,C3,25,70,C3,75,70,44,50,C2
590 DATA 52,45,41,C4,00,FE,02,C0,DD,7E,02,FE,01,CA,5C,70
600 DATA FE,00,CA,45,70,E5,01,0F,00,ED,4A,7E,E1,DD,66,01
610 DATA DD,6E,00,77,C9,DF,9C,70,DA,73,70,21,40,BE,CD,8B
620 DATA 70,01,0A,00,ED,4A,CD,8B,70,C3,35,70,DF,9F,70,DA
630 DATA 73,70,21,40,BE,CD,8B,70,01,1A,00,ED,4A,CD,8B,70
640 DATA C3,35,70,3F,C9,FE,04,C0,DD,66,01,DD,6E,00,DD,4E
650 DATA 02,DD,56,04,DD,5E,06,DF,99,70,C9,D5,F5,7E,5F,23
660 DATA 7E,57,EB,F1,D1,C9,4B,C0,07,3C,C0,07,1E,C0,07,21
670 DATA C0,07,A4,31,39,38,37,20,41,72,74,2E
```

WORDS WORK

How to get the most from your word-processor and printer

More on *Tasword*, more tips and tricks, more Steve Grand. In fact, more of everything

Printing options

When you opt to print a file from within *Tasword* you are bombarded with a mass of questions. If you hit Copy at this point you can print the text file as is. Your other alternative is to go through the menu altering options.

You can choose which line you wish to begin and end printing — useful if you only require sections of a file printed. If you are producing a mail-out or news letter then being able to print multiple copies is handy. When articles are submitted to us, or indeed any publication, the material is usually arranged in double-line spacing. This gives the Editor room to hack the article about. *Tasword* allows you to alter line spacing easily.

While creating a document you may create text specially for a header (text which gets printed at the top of a page) or footer (bottom of the page text). From the printing options menu you can choose either to disregard header or footer text, or print it. Page numbers can be made to appear virtually anywhere on a page: top, bottom, middle, sides.

Stay tuned till next month when we investigate *Tasword's* handy Data Merge facilities.

Character printing

When you create a *Tasword* document the standard Ascii characters are generated on hitting the keyboard. These can be altered by entering the "Define normal print characters" from the Customise program menu. A sequence of three codes may be allocated to a key. Great if you want to print accented characters or special symbols.

Say you wished to produce an a with a grave accent on it (à): first choose the character you wish to store the definition on — for arguments sake we chose shifted backslash (which produces the grave accent) — then the desired Ascii codes (in this case 97, 8, 96). The 8 tells the printer to back space one character.

Grand Finale

Steve Grand, programmer of *PenDown*, concludes his over view of the word-processor

Peter Hunter's original *PenDown*, and my subsequent RML 480Z and French Amstrad versions, were firmly aimed at schools. Many of you will have bought *PenDown* with your own younger children (or maybe brothers and sisters) in mind. Let children of whatever age play freely with *PenDown*. They find great relief in the way word-processors allow them to remove mistakes: no crossing-out, no unalterable commitment to a particular layout, fewer misspellings. Encourage them to use the Dictionary. Not only to find spellings, but also as a thesaurus — do a search-by-group and use the resulting list of related words as a stimulus to ideas or a wider vocabulary. Don't forget the added satisfaction of seeing their written work printed in a large and pretty font.





PenDown can help pre- and early readers too. My five year old enjoys copying text from books to screen, one letter at a time. Oddly enough, the translation from lower-case text to the capital letters used on the keyboard doesn't seem to be much of a problem. In fact it helps him see the correspondence between upper and lower case. You could always stick lower-case labels to the keys. Why not use the clear, familiar letter-shapes of the JUMBO font to print out labels and word-cards for young readers?

For the older children amongst us, aged 12 to 120, don't forget the Font Editor program that comes with the PenDown Utilities. Why not design some fonts of your own? To make it easier, pick one of the supplied fonts and load this into the editor. Use this as the skeleton, and alter some or all of the letter-shapes to create a new font (remember to give it a different name when saving to disk).

Of course, it is not compulsory to create characters and rematch their Ascii values — you may pick any rarely-used characters and redefine them as other symbols or icons. Ideal for special applications like scientific and mathematical formulae, coded messages, letter-head logos, circuit diagrams, and so on. If a single character is not big enough, spread the icon over two or more characters.

One of the necessary limitations of *PenDown* is the inability to mix several fonts on one page. However, if you only wish to use a special font as a single title to a piece of text, or if you are using various fonts to make up a poster, it is fairly straightforward to print the page in two or more stages: just pass the same sheet of paper back through your printer several times. Remember to note the position of the paper before its first pass so that you can re-align it accurately for subsequent passes. Positioning fancy and plain text requires a certain amount of trial and error as line spacing is different. If you own a different colour ribbon for your printer, try swapping colours between passes. If the paper is accurately positioned, you might be able to create a third colour by over-printing, or even (with sophisticated font design) produce a multi-colour font.

Put your pen down and get on with it!

Ways with Words

Do you have favourite tricks for getting the best out of your word-processor? Or do you have seemingly insurmountable problems? Share them with other Amstrad addicts. Send them in to: **Words Work, Amstrad Action, 4 Queen Street, Bath, BA1 1EJ.**

Bugged Protext

My *Protext* has a bug (not possible you cry). Arnor weren't aware of it when I told them. Maybe it has been corrected in later versions. If so, I claim credit. What is it you ask? Well, read on...

In Overwrite mode you should be able to write on the document as though everything is bolted in place. You can, until you come against a previously defined Tab character. When you hit this, everything to the right jumps one Tab interval to the right. Very annoying when editing a table of data. Try it with Tabs showing (Ctrl T).

Tim Allen
Camberly, Surrey

Tons of Tasword tips

I found the *Tasword* program to be very useful, but I was frustrated for a while in my attempts to produce two columns of print. If they are set up side by side on the screen then any attempt to delete or insert a line in one column corrupts its neighbour. It isn't possible to move or merge the text to make separate columns overlap. My first response was to write a simple Basic program to join 'text sideways, but then I found an easier way.

Most printers have a facility for setting margins and doing a reverse line feed. I now simply type my second column directly under the first, with the on screen margins set at column 3 and 37. At the end of the first column I put a control character to set the printer margin at column 40 and a series of reverse line feed characters (to determine how many, subtract the line number of the top of the first column from the line number at the top of the second column). Then print (with no form feed at the end of the page). The printer prints out the left column, sets its margin to 40 — so as to print on the right hand side — and then it goes back to the top of the page and prints the right hand column. The required control sequences are, for the DMP 2000:

Reverse Line Feed	32 27 106 36
Double Reverse LF	32 27 106 72
Set Margin to Column 40*	32 27 108 40*
Reset Margin	32 27 108 1

* = this parameter can be changed

Brother HR 10 Daisy Wheel

Reverse Line Feed	32 27 10
Double Reverse LF	32 27 10 27 10
Set Margin at current position	32 27 57
Reset	27 9 1 27 57

The last code is too long to include a space (32) so any following text on that line is shifted one place to the left.

Remember that it is possible in *Tasword* to redefine characters to produce control codes from a single key press. (Select customise program from main menu and remember to save *Tasword* when you are finished). In my set up H produces a reverse line feed and so I have set up 1 on the pad to produce the sequence 185 (control space) 72 (Ascii H). It is also possible to change the key definitions in *Tasword's* Basic loading program, so that pressing control 1 produces a string of control characters. For example, HHHHHHH:

```
30 KEY 1,CHR$(185)+"H"+CHR$(185)+"H"+CHR$(185)+"H"+CHR$(185)+
   "H"+CHR$(185)+ "H"+CHR$(185)+"H"+CHR$(185)+"H"
```

I use my daisy wheel a lot to produce stencils for a Roneo duplicator (this would be very rough on the print head of a dot matrix printer). I find that best results are obtained with an extra sensitive print wheel stencil and double striking every character. The double strike command is cancelled at the end of every line on my printer, so I find it convenient to define a key to print a line of Ds (my control character) down the left hand margin (reset the left hand margin first outside the printing area) this is accomplished by:

```
30 KEY 1,CHR$(185)+"D"+CHR$(13)+CHR$(185)+"D"+CHR$(13)+CHR$(185)
   +"D"+CHR$(13)+CHR$(185)+"D"+CHR$(13)+CHR$(185)+"D"+CHR$(13)
```

Remember to remove the ribbon and clean the print wheel afterwards. I find Blu-Tac works best.

Finally, once you have redefined all the keys and set up 40 printer control characters, the notepad facility is ideal for recording what does what to what.

Rev Alan Sharp
Aberdeen

Maximum joy

Did you know that the *Tasword 6128* program responds to joystick control?

Push the joystick	UP:	Justifies the line
	DOWN:	Unjustifies a line
	LEFT:	Toggles the insert mode on/off
	RIGHT:	Inserts a blank line

Richard Hill
Luton, Beds

The joystick can also be used with Protext if you redefine keys 72 to 77.

```
KEY DEF 72,1,27   ' Go to top of text
KEY DEF 73,1,29   ' Go to bottom of text
KEY DEF 74,1,246  ' Move one word to the left
KEY DEF 75,1,247  ' Move one word to the right
KEY DEF 76,1,6    ' Format block of text
```

For those of you with the Amstrad JY1 joystick with two separate fire buttons:

```
KEY DEF 77,1,159
KEY 159,CHR$(252)+"S"+CHR$(13)+CHR$(13)+CHR$(252)
```

You must be in edit mode (Document or Program) for this to work. It places you in command mode, saves the current file and returns you to your original position. If you haven't previously saved the file Bad command appears.

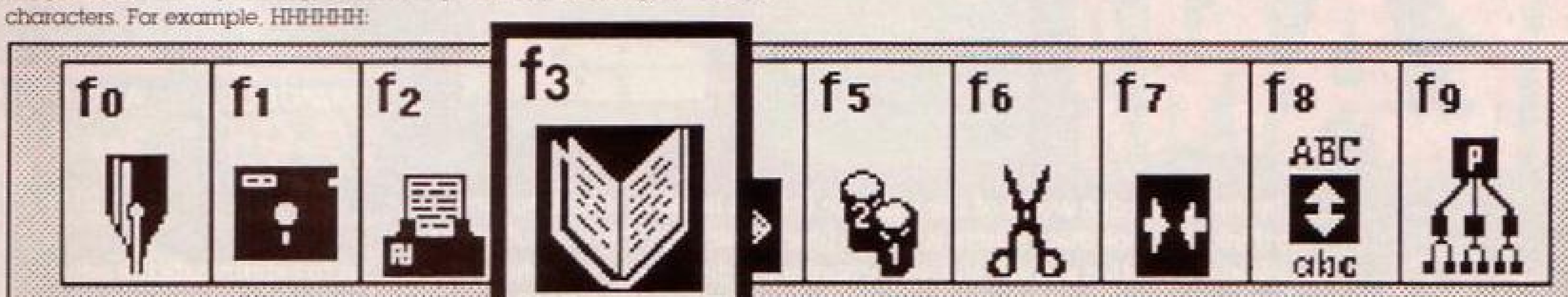
Anybody got suggestions for two joysticks, trackerballs, mice, light pens, foot pedals, ear waggling...

No can spell

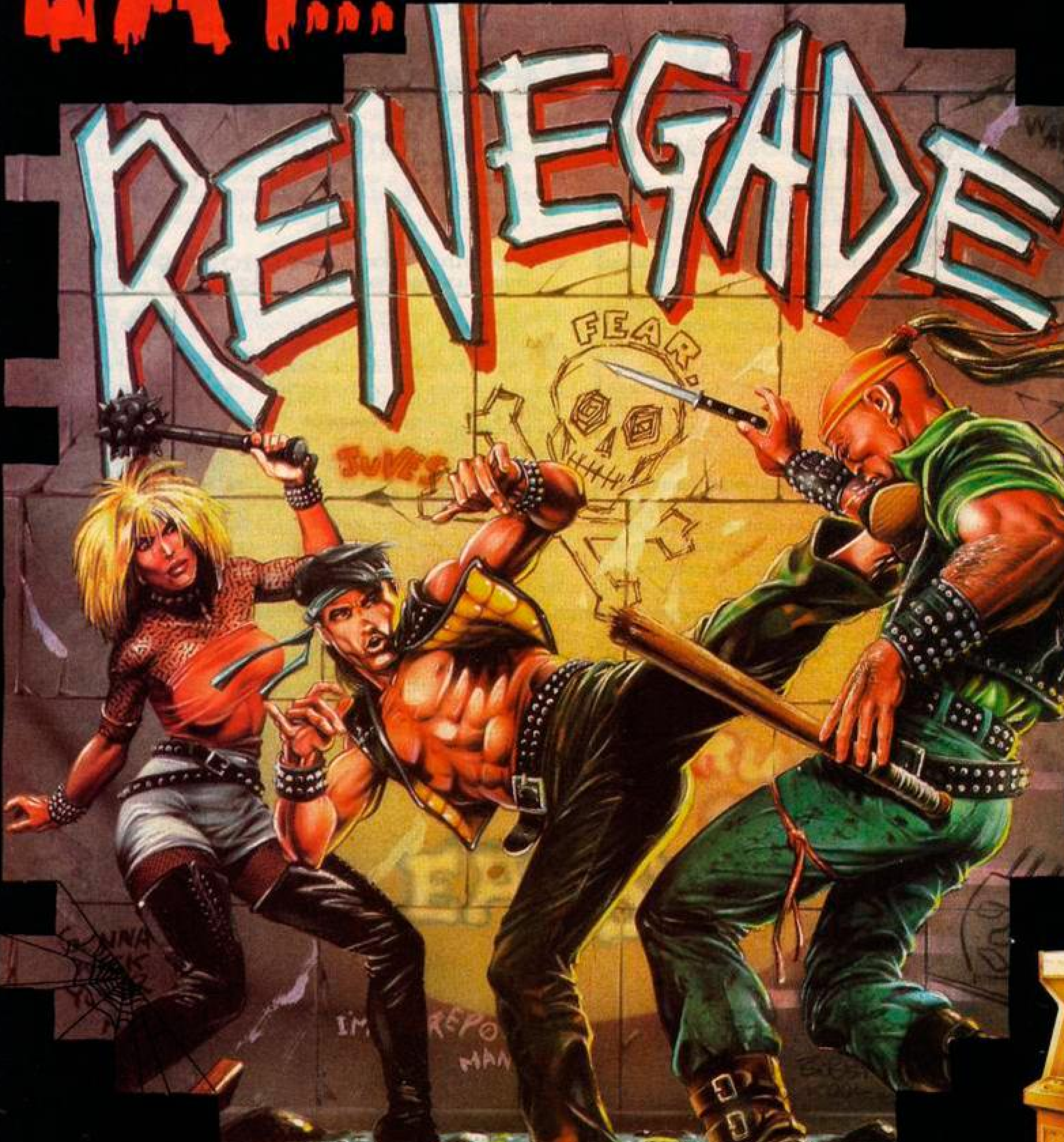
I use the word-processor in *Mini Office II* and I want to spell check the text files. I understand that there are no spelling checkers specifically for it. Is it possible to save the document as an Ascii file and use Arnor's *Prospell* on it?

Rajiv Gatha
Ascot, Berkshire

Yes.



PLAY...



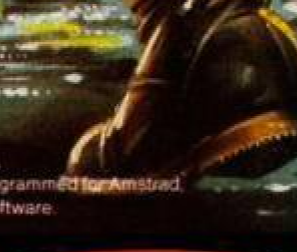


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Basic Word-processing

Bill Simister, author and CPC owner, begins a six part series on how to create and use a word-processor entirely in Basic.

The trouble with word-processors is that they are written by programmers who think in a complex manner. They are difficult for a writer to understand: he is impatient, wanting to get on with his work, and cannot spare enough of his mind to deal with the intricate and ambiguous instructions that often accompany word-processors.

What is needed is a means of writing text rapidly as it enters the mind. Then EDITing it by altering words or sentences, or correcting spelling. This must be done easily, without taxing the brain. However, this simplicity must hide power. Enough power, say, to store up to 6,ØØØ words for a complete chapter or article. To be of any use the word-processor must be able to send the final document to either screen or printer.

After several days I devised a simple program, in Basic, that enables the writer with printer to get on with his work, without having to think his way through special key sequences.

The final listing and an accompanying 7Ø,ØØØ words ended up in a book. The book in question, Simple Applications of the Amstrad CPCs for Writers, is published by Bernard Babani (and was reviewed in AA issue 22). Since the book's publication I have continued improving the program. And here is the latest version:

```
1Ø REM
2Ø REM BASIC WORD-PROCESSING
3Ø REM
6Ø KEY 129,"PRINT#S, ":KEY 138,"CLS:list 1ØØØ-"+CHR$(13):
   KEY 128,"RUN"+CHR$(13):KEY DEF 1Ø,Ø,162:KEY 131,"WORDUSE1"
7Ø INK Ø,23:INK 1,Ø:BORDER 23
8Ø MODE 2:WINDOW 7,72,1,25
9Ø S=Ø:A=1:REM PRINT#S,CHR$(27);"U";CHR$(1):PRINT #S,CHR$(27);
   "1";CHR$(6):PRINT#S,CHR$(27);"A";chr$(24)PRINT#S,CHR$(27);
   "p";CHR$(1):REM paging to 5 (incl)
1ØØ REM PRINT#S,CHR$(27);"C";CHR$(33):PRINT#S,CHR$(27);"N";
    CHR$(7):REM skip perforations routine to make pages
11Ø REM PRINT#S,CHR$(27);"j";CHR$(255):PRINT#S,CHR$(27);"j";
    CHR$(255):WIDTH 66:GOTO 4ØØ:REM routine to position
    the first number correctly
12Ø TROFF
13Ø WIDTH 66:GOTO 1ØØØ
4ØØ REM routine to print page numbers
41Ø FOR q=1 TO 3Ø
42Ø PRINT#S,SPC(28);A:A=A+1
43Ø PRINT#S,STRING$(31,CHR$(1Ø))
44Ø NEXT
45Ø STOP
9ØØ REM To start, set leading edge of paper 1/8th inch beyond
    the ribbon edge
1ØØØ PRINT#S,SPC(17);"BASIC WORD-PROCESSING":PRINT#S,SPC(21);
     "by W Simister":PRINT #S,SPC(24);"Part One":PRINT#S
1Ø1Ø PRINT#S,"    The trouble with word-processors is that
     they   are written by programmers who think in a
     complex manner. They are difficult for a writer to
     under-  stand: he is impatient, wanting to get on with his
work,  "
1Ø2Ø PRINT#S,"and cannot spare enough of his mind to deal with
     the       intricate and ambiguous instructions that often
               accompany word-processors."
```

A new era

This new version uses quite a number of different commands. In subsequent parts I shall explain how these work. For now, I shall confine myself to explaining its uses to those with some knowledge of the Amstrad CPCs.

The program was written on a 464, with DMP 2ØØØ printer, and two disk drives. As far as I know it transfers easily to the 6128, and presumably to the 664. In lines 9Ø, 1ØØ and 11Ø – after the REMs – are notes on what the printer control codes do. These can be changed if your printer doesn't accept standard Epson codes.

Having typed in the program and used RUN to put it in the correct mode, press fØ on the function-key pad. This should produce the program title and my name on screen. Below that "Part One" and the rest of the text (contained in lines 1ØØØ, 1Ø1Ø and 1Ø2Ø) will appear. If it doesn't you have entered something incorrectly. Press the full stop within the key pad; the first three lines of text should appear. You can start typing in your text now, using 1Ø as the spacing between line numbers.

Other keys that have been re-allocated are: f7, which gives you a quote mark to use between the speech marks reserved for the beginning and end of each numbered lines of text. If you use the quote mark (which shares a key with 2) anywhere except at the beginning or end of the line you will cause an error. Hitting f1 produces **PRINT #S,**; while f3 is reserved for the save command.

To experiment enter in line number 1Ø3Ø, hit the space bar, press f1, hit shift 2 (") and then commence typing. If it is a paragraph beginning enter four spaces first:

```
1Ø3Ø PRINT#S,"    This is a paragraph beginning."
```

If the text is carried on from a previous line don't use spaces to pad it out. Do it as follows:

```
1Ø3Ø PRINT#S,"this is a continuation"
```

Look at lines 1Ø1Ø and 1Ø2Ø in the listing. There is a column of spaces below the first double apostrophe. Each side of the space below the quote is the start and end of a text line. It is essential you do not fill that space with a word – otherwise the word gets cut in half.

True print

On my printer I use proportional type which gives letters of different width, so there is no point in right-hand-edge justification. If you must justify, use NLQ then justify manually as seen in line 1Ø1Ø.

The computer will not allow more than three lines of text per program line – finishing at the end of the third line is essential.

Letter S has been made a variable equating to zero (line 9Ø). If the Ø is changed to 8, the text will go to the printer. While entering your text leave S=Ø. Only change it for printing out. The A is for pagination. Carried out by lines 4ØØ to 44Ø.

When printing, insert continuous printer paper, set the leading edge to just beyond the ribbon edge (see line 9ØØ). LIST line 9Ø onwards, EDIT line 9Ø by changing the Ø to 8, remove the first REM in that line, alter line 1ØØ by removing the first REM, and finally type RUN. The printer will dump your text to printer and, if you've positioned the paper correctly, should jump over the perforation lines.

The pages won't be numbered. To number them, cut off what has been printed, re-thread it into the printer, set the leading edge level with the ribbon, LIST for the program start, replace the REM in line 1ØØ, take out the REM from line 11Ø and then enter RUN.

When the printer starts it performs a sort of dance in order to position the first number well above the text. Don't worry about this, it only happens on the first page. You will find the pages are numbered properly. At the end don't forget to alter lines 9Ø and 11Ø, putting them back as they were before printing. Enter **SAVE"**, hit f3 and tap enter (or return). The program will save to either tape or disk.

That is enough to allow you to experiment with this new Basic program. In the next part I shall go into the various lines of the program in much more detail.

Silicon Sounds

Midi software and an Ensoniq synthesizer are all you need to form the ultimate one-man band. Richard Monteiro puts theory to practise

ESQ1 Data Dump and Editor
Silicon Systems, £74.95 disk

Ensoniq's synthesizer is probably the most user-friendly of its kind. It has a relatively large LED display; accessing functions and voice programming is simple – unlike the Roland D50 or Yamaha DX7 (software reviewed last issue). Software allowing you to store sound data is obviously useful. But is an editor necessary?

Sound sense

Before going any further, have you got an ESQ1 synthesizer? No. Then you've got the wrong software. A Midi interface is also required. Silicon supply such a box with Midi-in and Midi-out ports at £49.95 (reviewed AA 26). Unless your machine is a 6128 or 664 then a disk drive (DDI-1) is essential. Available from Amstrad (0277 228888) at around £150.

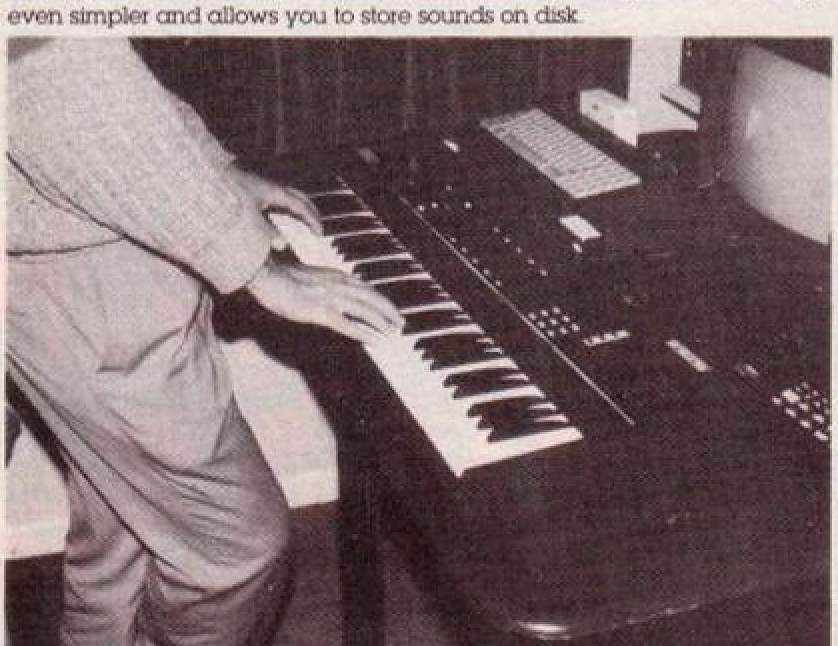
Silicon Systems are offering you the chance to upgrade the measly 8k of sequencer-ram (capable of storing 2,400 notes) inside your ESQ1 synth. For £49.95 you can give the machine a total of 32k (10,000 notes).

The ESQ1 can hold 40 sounds in memory at once. Each sound or patch is referred to as a program. The Data Dump allows you to send programs to and from computer. Thankfully a whole bank (40 sounds) may be sent or received in one go. Only internal banks can be saved. A bank takes up 9k of disk space; a touch under 20 banks can be stored on one side of the disk. That's a staggering 1,600 individual sounds per disk.

Editing occurs in real time – as you alter the makeup of one of the synth's sounds (from the CPC keyboard) the ESQ1 gets updated immediately. Sounds can be edited directly from the ESQ1 using its push-buttons, it seems the only advantage of editing via the Amstrad is the large screen display. All the sound information is shown at once whereas the ESQ1's comparatively tiny display holds the parameter being altered.

If you aren't keyed up on the various sound parameters that can be altered (and what affect they have) then don't look in the manual. It assumes you know what you're doing.

Apart from Silicon's offering there is no Midi software that is ESQ1 specific. The main reason being the simplicity with which sounds can be edited direct from the synthesizer. Still, Silicon's package makes editing even simpler and allows you to store sounds on disk.



● Leon tapping away at his synth



● 6128, drum machine and ESQ1; Top of the Pops next

ESQ1 Sequencer Dump
Silicon Systems, £59.95 disk

Musical compositions or sequences can be created and stored on an ESQ1. Composing is easy, space is tight. Silicon has realised this and offers a Sequencer Dump program. A pity that both Data- and Sequencer Dump packages aren't bundled together: the price would undoubtedly be an octave lower.

Midi talk

Connections. That's what Midi is all about. The universal 5-pin Din plug is accepted as the music industry standard for connecting and communicating between micro, synth and other Midi instruments. It is simply the most convenient method for transferring information from one source to another. This information may be anything from a complete composition to data making up a sound.

The Sequencer Dump does little else than its title suggests. It merely lets you save and load sequences to and from disk.

You wouldn't be blamed for having doubts at shelling out an extra £60 for, what is, a very simple program. The fact is that musicians have few alternatives. They can either save compositions to cassette (prone to corruption due to the very high baud rate at which data is saved) or use a Mirage (a £1,000 machine with 3.5 inch drive capable of saving and loading sequences – also has a few extra features, such as sampling, thrown in).

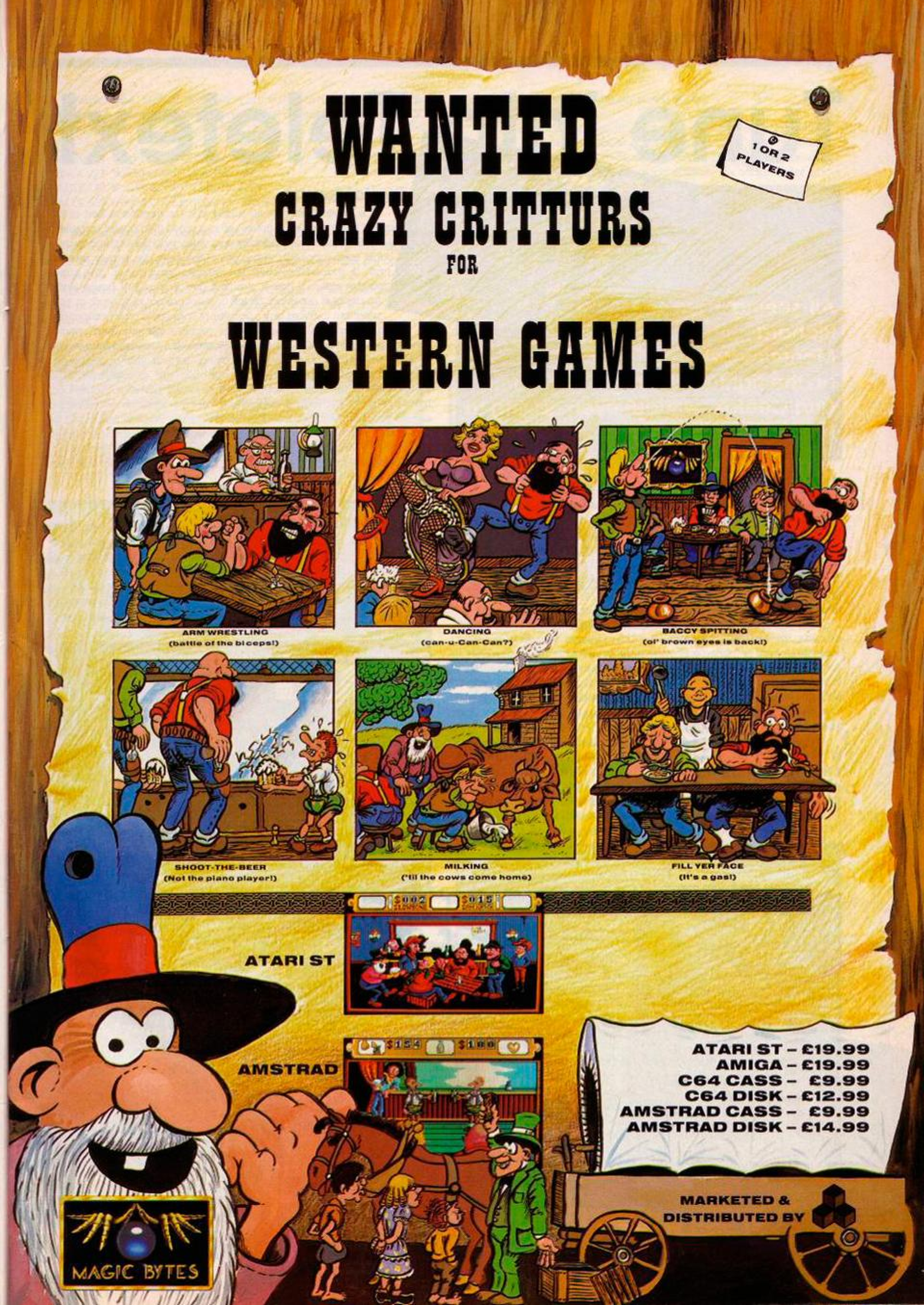
There are no alternatives to Silicon's Amstrad ESQ1 software at present. Indeed, no other micro can boast Ensoniq software. At first sight the £185 (plus £300-odd if you haven't got a CPC) asking price for the complete outfit may seem excessive, however, there are no cheaper, reliable alternatives. Bar that the packages perform well and are learnt in a quaver.

GOOD NEWS	BAD NEWS
■ Simple to operate and learn. ■ Hundreds of sounds and sequences can be stored on disk. ■ Comprehensive sound editor.	■ Error trapping not perfect. ■ Not cheap but then there aren't any alternatives.

Silicon Systems ☎ 061 848 8959
Trafford Technology Centre, 43 Elsinore Rd, Manchester, M16 0WG

Cheers chaps

Many thanks to Leon Seltsikas for loan of his Ensoniq synthesizer, drum machine and leads. Also thanks to Ian Tavener whose room will never look the same.


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CRAZY CRITTURS
FOR
WESTERN GAMES
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ARM WRESTLING
(battle of the biceps!)
DANCING
(can-u-Can-Can?)
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(ol' brown eyes is back!)
SHOOT-THE-BEER
(Not the piano player!)
MILKING
('til the cows come home)
FILL YER FACE
(It's a gas!)
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AMSTRAD
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AMIGA – £19.99
C64 CASS – £9.99
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Tune into Teletext



● Oh dear, BP shares are down

All-seeing Richard Monteiro gets on the right wavelength for Oracle and Ceefax, without even having to move from his CPC.

Teletext Adaptor and Tuner

Microtext Ltd, £74.95 adaptor, £114.80 adaptor and tuner

Microtext has made it possible for you to page Oracle and Ceefax without the need of a television or remote control unit. Indeed, all you need is your Amstrad CPC, a couple of black boxes and an aerial. You may think it odd having this facility on your Amstrad, but the monitor, is ideal for displaying Teletext frames, and it's a lot cheaper than buying a special Teletext-receiving television.

The Teletext Adaptor has been available for almost a year. To tune into the Teletext services (with only the adaptor) you need a video recorder. A lead is connected between the adaptor and the Video Out or AV of the video. Video Out is normally used for recording from one video to another, but carries all the correct signals for tapping into Teletext. Recently another box has joined Microtext's system – the Teletext tuner. You no longer need a video to assist in picking up Teletext because the tuner does that. Cost of upgrading is £48.80.

Using a video recorder and adaptor to receive Teletext allows you to use the setup anywhere in the world – assuming that the country you're in has such a service. Currently most of Europe, Australia, South Africa, Malaysia and a host of other countries have Teletext on offer. If you use the tuner you probably won't be able to use it in other countries.

If you're lucky enough to possess a satellite dish then you may tune into SkyText and similar services from abroad.

The life and times

Teletext, a British invention, was first introduced to the public back in 1976. During its development period the BBC and IBA went their separate ways, but it was eventually agreed that two heads are better than one – indeed, BBC's Ceefax and ITV's Oracle hit the air waves at the same time.

Most countries in Europe, and for that matter the rest of the world, use the Teletext system invented in the UK. Two exceptions being France and America. The States are way behind in this method of information transmission: apparently US advertisers would rather television viewers sit through commercial breaks than flick through frames of news, sport, weather reports and so on. Understandable really.

Teletext is available during normal broadcasting hours. It is free: the BBC's service being financed by the licence fee and the Oracle service on ITV and Channel 4 from advertising. News stories are updated as they come in, share prices every day and other features once a week. Generally there are a handful of people working full-time keying in pages and making sure everything goes smoothly. Most of the work is done on a freelance basis, journalists around the UK sending news and articles direct to the Ceefax and Oracle offices.

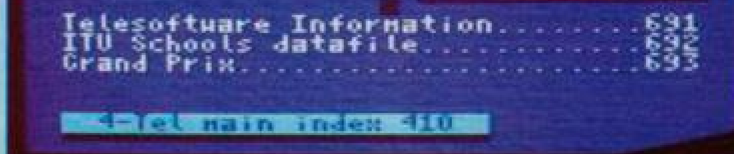
Digital tuning

The Teletext adaptor fits neatly into the expansion port at the back of the computer. If you're using a video then a lead (supplied) is connected between adaptor and video recorder. Alternatively a cable (also supplied), with plugs of the 5-pin din variety at each end, is placed between the adaptor and tuner. The tuner requires external power, which it gets from a 12V power pack. An aerial is necessary. A loft or indoor aerial may work in your area, but to avoid any uncertainty connect to a roof antenna.

If you intend using the tuner to receive teletext then special software must be run. This automatically scans the television frequencies in your area to find out which are being used. If you've connected everything successfully then you should get a message P100 SEARCHING. If the tuner is not plugged in, or the power not turned on, then you won't get such a message. When the software encounters a signal, you'll know it because the first line of the Teletext frame will be displayed, then you may save this channel setting to a key (between 0–9 and A–F). After that the software continues its search, letting you save channel settings when found, until the whole TV band has been scanned (which takes about 90 seconds).

Telesoftware

Both Ceefax and Oracle have small sections devoted to micro users. Computing and Telesoftware can be found on Ceefax pages 700 to 737 (BBC 2). Unfortunately the BBC's service is geared towards BBC computer owners: there aren't any programs for CPC users, but the news pages are interesting. Within Oracle (Channel 4) is a section called 4-Tel. This offers BBC and Amstrad users the opportunity to download listings. Starts at page 460.



● Computing on 4-Tel



● What says the weather man?

During the signal tracing you can identify from which broadcasting house the Teletext frames are coming as either CEEFAX (BBC) or ORACLE (ITV) appear:

CEEFAX 134 Wed 14 Oct 11:23/03 – *BBC 1*
CEEFAX 221 Wed 14 Oct 11:34/26 – *BBC 2*
ORACLE 173 Wed24 Oct ITV 1144:35 – *ITV*
ORACLE 556 Wed24 Oct C4 1152:11 – *Ch 4*

You can distinguish between BBC 1 and BBC 2 frames by the frame number: in the 100's and 300's for BBC 1 and 200's, 300's and 700's for BBC 2. It is simpler to spot an ITV or Channel 4 page as either ITV or C4 is displayed at the top of the frame.

There is no need to go through this procedure if you are using the video and adaptor as the video is already tuned in to the correct channels.

Rom on

If you own a romboard then contact Goldmark Systems: the software for the Teletext adaptor and tuner is available on rom for £17.25. The tuner software, when run for the first time, tunes itself in to the channels – the settings are then saved. Goldmark requires a copy of this tuned in software to place on rom. More information from Goldmark at 51 Comet Rd, Hatfield, Herts, AL10 0SY. Or phone them on 07072 71529.

Frame flyback

With the software running, frames can be displayed quickly and easily by tapping in a three digit number. The number simply refers to the page you wish to access. But the first thing you want to do is select a channel; press C followed by a number between 0 and 9 or letter from A to F to choose one of the previously defined channels. Apart from jumping between channels and calling up pages, Microtext's software gives you many other options to play with – things not normally available from a Teletext-receiving television. All functions are selected by pressing one key:

N – Next page. Say you have selected page 203; by pressing N you will advance to the next page. Each keypress moves you one page forward.

Teletext for techs

Television signals consist of 625 lines. The signals deliver information regarding brightness and colour of individual lines. When these lines are demodulated and subsequently displayed a complete picture is formed (this occurs every 50th of a second). The first 22 lines of the signal are not used in the picture's makeup. Of these 22 lines, a total of 16 may be used for Teletext. In fact, only eight are currently employed (in the early days this was four). Data comes in at approximately seven megabits a second (7000 baud) – that's why there is little hanging around for a frame to arrive. You can see the Teletext data as a series of dancing dots on a badly adjusted television channel.

B – Moves you back a page.

R – Reveal. Certain pages have hidden sections, such as a puzzle or joke, which can be shown by hitting this key.

H – Hold. Pages may take up several screens. To avoid the screens updating too quickly the H key holds the current screen. Any other key resumes.

S – Save. This saves the current screen image to cassette or disk. You will be prompted for a filename.

L – Load. Simply loads a previously saved image.

Frames may be dumped to a printer if you have one that accepts Epson codes. However, Microtext can supply you with a dump routine for other printer types. The manual contains a program that prints a Teletext frame without the graphics characters. It's much faster and works with daisy wheel printers.

The place to be

If you have problems receiving Teletext frames, for example characters are missing or lines corrupt, don't blame the adaptor or tuner immediately. If you are using a loop or indoor aerial then the signal may be too weak – try and use an external antenna. Problems will also occur if you are hidden away in a valley or there are tall buildings that won't let signals through. In these cases you may have to reposition the outside aerial.

Legal requirements

A law recently passed through Parliament that allows bona fide computer users to use a television (black and white or colour) without need of a licence. If it can be proved that you use the television for anything other than computing – and you don't hold a licence – you will be prosecuted.

Dedicated computer monitors, such as those found on the CPC machines, have never required a television licence. However, you must have a valid licence (colour if you own a colour monitor) if you wish to use the adaptor to receive Teletext. Don't panic though, remember you only need one licence per household: if there's a television in the house (and an accompanying licence) you won't need another.

The Teletext frames that are eventually displayed on your Amstrad monitor are of decent quality. Microtext had the problem of displaying 16 colours with forty-columns of text. They had to settle for 16 colours and squashed text. The result, although not of the same standard as that found on the television, is very high indeed and legible.

Microtext has left the software in unprotected form and actively encourages you to inspect it. The manual explains what certain parts of the program do and suggests that you could re-write it to suit your own purposes. This means you could automatically download particular pages everyday to keep track of trends in the weather, the stock market, or even use it as a pools predictor.

If you need to get your hands on the latest news flash, sports results or weather report in a hurry and don't have a Teletext receiving television then Microtext's offering is a welcome alternative. The Teletext adaptor et al is priced just right when you consider what you get and what it does. A well thought out product that performs admirably.

Microtext Ltd ☎ 0705 595694
7 Birdlip Close, Horndean, Hants, PO8 9PW

GOOD NEWS	BAD NEWS
■ **Not a toy. Can be put to serious use.**	■ A television licence is required.
■ **Provides extra functions not found on a Teletext receiving TV.**	■ A costly gadget if you don't need Teletext frequently.
■ **Compared to the extra (£100 minimum) added to the price of a TV, the adaptor and tuner are reasonable.**	
■ **Manual makes setting up simple.**	





HOT TIPS

Have you special tricks and tactics with serious software and hardware? Share them with other Amstrad addicts. Send them to "Hot Tips", Amstrad Action, 4 Queen Street, Bath, BA1 1EJ. Remember the best tip each month gets £20

Stealer

If you run a program containing large arrays you won't be able to edit it later. For example, run the program below:

```
10 DIM a$(7028):FOR a=1 to 7028:a$(a)="X":NEXT:PRINT FRE("")
```

The result will be around 21084 bytes free. Now enter **EDIT 10 <return> <return> PRINT FRE("")**. You should get 3 bytes free. Increasing the value 7028 results in the String space full error message.

Use small arrays when developing and debugging programs. This prevents the memory from filling too quickly. Once the program is functioning correctly dimension the arrays to the desired size.

Tony Green
Worcestershire

Mineshaft

Here is a program that produces weird graphics. Use the cursor keys to control it:

```
10 MODE 0:SPEED KEY 1,1:CALL &BC08
```

Richard Hannah
Hellensburgh, Strathclyde

Printing option for Amfile

Browsing through my disk collection, I discovered a couple of text files (on the same disk as *Amfile*). I decided to load them into *Tasword* to find out what they were. They loaded successfully – my book collection which I had previously entered in *Amfile*. Oh joy, I can now print anything written in *Amfile* through *Tasword*.

Luke Peters
High Wycombe, Bucks

COM maker

I have recently bought *Maxam* and have been progressing well with machine code. One thing that annoyed me was *Maxam*'s inability to assemble machine code to a CP/M COM file. To rectify this I wrote a program to do the job.

To use the program enter your machine code, but remember to locate it at &100. Save the code as a binary file, taking note of the file length. Run my program and enter the name of the binary file, length of file and the name of the .COM file you wish it to produce. To test the program load CPM and type in the newly created .COM file at the A> prompt.

```
10 MODE 1:CALL &BC02:PAPER 0:PEN 1:PRINT"COM Maker"
20 PRINT:INPUT"Enter binary filename ",binfile$
30 INPUT"Enter file length ",length
40 PRINT:INPUT"Enter .COM save filename ",comfile$
50 comfile$=comfile$+".COM"
60 MEMORY &2FFF:LOAD binfile$,&3000:OPENOUT comfile$
70 FOR k=&3000 TO &3000+length:PRINT#9,CHR$(PEEK(k));
80 NEXT k:CLOSEOUT:PRINT:PRINT"File created":CAT
```

James Berry
Hythe, Kent

Tape filing

There is no provision within *Tasword 6128* (or *464D*) to load and save files to tape – useful for archiving files and reclaiming expensive disk space. Anyone who has used the CPM programs *CSAVE* and *CLOAD* will appreciate this simple but effective poke which reconfigures Tasword to work from cassette.

Add the following to the *Tasword* Basic loader and save to disk as TWTAPE:

```
1 |TAPE:POKE &BC9B,&C9
```

Return to Basic and **RUN"TWTAPE"** to switch to tape at any time. Return to Basic and type **|DISC:RUN"tasword"** to switch back to disk operation.

Richard Hodges
Barnet, Herts

Middle of the line

A simple way of ensuring text is centred on the screen is to use this small routine:

```
10 z$="Your string":GOSUB 1000
20 ' rest of your program
30 ' etc
1000 PRINT TAB ((80-LEN(z$))/2);z$:RETURN
```

As it stands the program centres text in Mode 2. Change the 80 in line 1000 to 40 for Mode 1 operation and 20 for chunky text.

David Ward
New Barnet

Computed Restores

On the subject of computed **RESTORES**; you say they aren't possible on the humble Arnold – Wrong! They are. At the beginning of your amazing program add these lines:

```
10 GOTO 60
20 POKE 429,lin MOD 256
30 POKE 430,lin\256
40 RESTORE 10
50 RETURN
60 ' Start of program
```

Do not under any circumstances alter lines 10 to 50. Line numbers and contents included.

Say you wished **RESTORE** to point to line 600, simply put **lin=600:GOSUB 10** somewhere in your program. It is that simple.

Kevin Hayward
Old Woking, Surrey

Saved screens

A screen saved using the *Multiface II* cannot be loaded into, say, the *Art Studio* or *Melbourne Draw*. To rectify this type in and run the routine below. The program will prompt you for a load and save filename. Enter this – the rest is automatic.

The converted screens can be used in your own programs by having **LOAD"filename":CALL &C7E5** somewhere in the listing.

```
10 CAT:INPUT"Load filename ",a$:MEMORY &3FFF:LOAD a$
20 PRINT:PRINT"Insert destination disk. Press a key..."
30 PRINT:INPUT"Save filename ",b$:CALL &8000
```

```
40 FOR t=&C7D0 TO &C7F6:READ c$:POKE t,VAL("&"+c$):NEXT
50 CALL &C7D0:SAVE b$,b,&C000,&4000:END
60 DATA 00,00,00,21,D4,B7,11,DE,FF,01,20,00,ED,B0,CD
70 DATA 11,BC,32,FF,FF,C9,21,DE,FF,11,D4,B7,01,20,00
80 DATA ED,B0,3A,FF,FF,CD,1C,BD,C9
```

The routine works on 664 and 6128 machines. To make it compatible with the 464 alter the bytes D4 and B7 (which appear in lines 60 and 70) to DA and B1 respectively.

It is possible to convert Multifaced screens to standard format by using:

```
MEMORY &3FFF:LOAD"filename":CALL &8000:CALL &BB18:
SAVE"filename",B,&C000,&4000
```

Unfortunately the mode and colours are not stored.
AA

Disk hacking

Information relating to a file's position on disk, name and other aspects are kept on the directory track. If the disk is data format you can find the directory on track 0 sectors &C1 to &C4. For CPM format look at track 2 sectors &41 to &44.

Each directory entry (file) reserves 32 bytes of space:

0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F

0 — User number (normally in the range 0 to 15, although certain commercial systems use numbers above 15 for protection reasons). If this location contains &E5 then the file has been erased – change it to zero to restore it.

1-8 — The filename.

9-B — Hold the three-letter file extension.

C — This is the entry number (0 if the file is less than 16k, 1 if the file is between 17k and 32k, 2 if the file is between 33k and 48k...)

D-E — These are always zero.

F — Indicates how many records the entry points at (if more than 1 the byte will be &80).

10-1F — Contain the pointers to the track and sectors that hold the program. The formula to apply the numbers to is:

```
track = 2 * (pointer value \ 9)
sector = format type + (2 * pointer value) MOD 9
```

The pointer value refers to the numbers found in locations 10-1F. Format type will either be &C1 (data format) or &41 (CPM format).Hope this helps anyone that enjoys hacking about with disks.
I Murphy
Accrington, Lancashire

Cleaner cassette deck

Many readers have problems when loading and saving from cassette. Perhaps the following may be of use:

Dab a cotton bud into methylated spirits, open the tape deck's door and start the cassette motor (by issuing a CAT or similar command). If you peer inside towards the right (front) you should see a wheel turning. Gently prop the cotton bud against the wheel. Every few minutes alter the position of the bud. Just watch the dirt come away (and, hopefully, many loading errors).
Adrian Sill
Doncaster, South Yorkshire

Not a lot of people know that

Did you know that there is a bug in *Laser Compiler* which causes a compiled program to crash after `4636 PRINT CHR$` commands?
James Anderson
Bearsden, Glasgow

HACKERS ONLY

The section that brings out the CPC's darkest secrets to light. If you don't understand what's written here, bad luck. You'll get no explanation, for this is where the hackers hang out.

Cassette capers

The cassette deck included with the 464 (external device required with 664/6128 machines) outputs a square-wave signal of approximately 5 Volts amplitude. Such a signal can be processed by the multi-functional 8255 parallel interface chip.

The 8255 contains 24 input/output bits. These bits may be programmed in two blocks of 12 bits. To make matters simple think of the chip as having three 8-bit ports (A, B and C). Port A gives input and output, port B input only and port C output only.

We are only interested in the chips cassette control feature:

Port A – input/output (address &F400)

Port B – input only (address &F500)

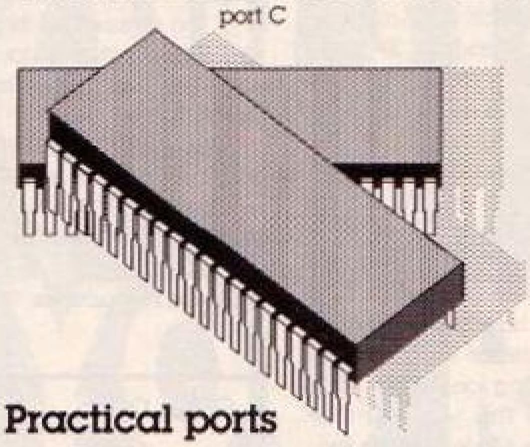
Bit 7 used to read cassette data.

Port C – output only (address &F600)

Bit 5 used for writing to cassette.
Bit 4 turns motor on or off.

A write-only control register (located at &F700) determines whether a bit sent to port C is either 0 or 1. The bits sent to &F700 do the following:

- it 7 must be zero
- bits 6-4 not used
- bits 3-1 determine which bit of port C is affected
- bit 0 determines the nature of the bit sent to port C



Practical ports

Confused? Try the following in Basic:

```
OUT &F700,9
```

or in Z80 assembler

```
LD BC,&F709
OUT (C),C
```

You should have heard the cassette motor start up. If you convert 9 to binary you get 00001001. Bit 0 is set. This means that the bit sent to port C will also be set (1). The 3rd bit is also set which tells us that bit 4 of port C will be affected. To switch off the cassette motor issue an `OUT &F700,8` – try and work out why it works.

Another method of switching on the motor (or rather setting bit 4 of port C) is `OUT &F600,16`.

Get to grips with this manner of switching on and off the cassette motor as next month we shall go one step further – cassette reading and writing.

Uses and abuses

Like most ICs in the Amstrad, maximum use is made of the 8255. Its uses include operating the keyboard and sound chip, testing the vertical sync of the CRTC, checking that the printer is ready to receive data and by detecting the position of a jumper it generates either a 50Hz or 60Hz picture. It even decides which of the 10-odd names will appear on power up (that is, Amstrad, Schneider, Arnold, Awa and so on). Another of the 8255's major functions is reading and writing bit-sized cassette deck data.



Utilities Disk One

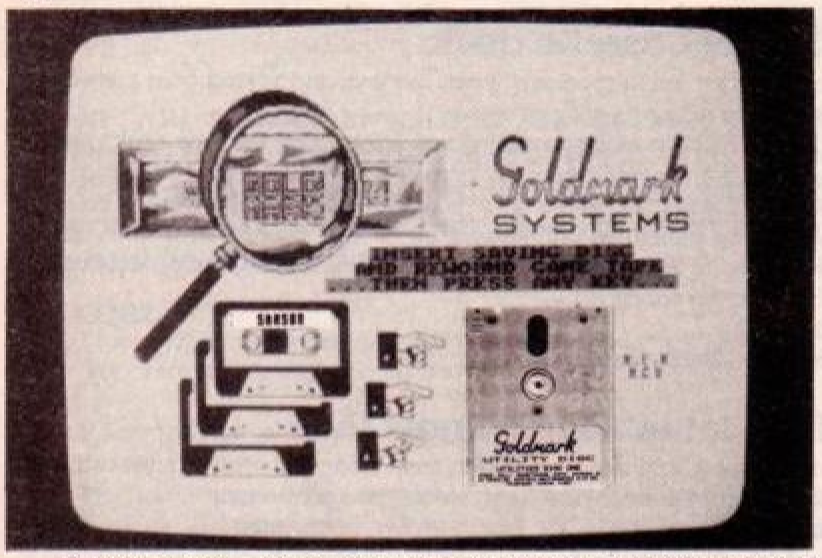
More utilities for Pat McDonald to utilise

Utilities Disk One

Goldmark Systems, £15.00 disk only

Utilities Disk One is really self explanatory: it's a suite of programs designed to make life easier for those with disk drives.

A five-options menu is displayed: Samson is the first; a tape-to-disk backup program designed to help you put your software collection onto disk. Once run, it asks you how many files to transfer (if you're not sure of the number enter 0) and whether you wish automatic or manual transfer. Manual transfer allows you to rename the files. Naturally, illegal names are rejected. There is also a printer option. This echos screen information to the printer - a nice option since it saves you the trouble of remembering.



Samson includes relocation routines to get round the sticky problem of memory overlap (certain cassette software lies over the portion of memory set aside for the disk drive). Samson will transfer these to a different part of memory and put them back where they belong on loading.

Quiclone is a routine originally written by Pride Utilities. It is an ultra simple disk copier. Transit is similar to Quiclone, but allows individual files to be copied from disk to disk. A disk catalogue is helpfully included. Viewtext allows you to examine individual files on a disk. Options available are disk catalogue, load a file, examine the file starting at any address and printer toggle (which allows you can to dump the file to paper). Viewtext is a program that I have a genuine use for... its good to be able to search machine code programs for ASCII messages.

Bach simply plays a minuet written by Johann Sebastian Bach. It's fine for a while, but it's so short that it soon palls.

One fault of the whole shebang is that the programs can only handle standard Amstrad files. Most protection systems won't be beaten by it. Samson, for instance, is not really much better than *Transmat*, which was published by Pride Utilities over two years ago. The other programs can accomplish little that CPM (which is free with a disk system) cannot. I will grant that playing Bach doesn't come under this category, but is that genuinely useful?

On the other hand, the suite of programs supplies much more usable disk space than CPM, and is easier to use than CPM. People who don't like messing about with CPM would prefer this package for copying disks and examining them. *Utilities Disk One* is a simple, unsophisticated product, which is nevertheless quite a useful tool.

Goldmark Systems ☎ 07072 71529
51 Comet Rd, Hatfield, Hertfordshire, AL10 0SY

GOOD NEWS

- **Programs are easy to use.**
- **Plenty of workspace left on the disk.**
- **Suitable for people with limited needs.**

BAD NEWS

- Contains nothing that hasn't been done before.
- You need to reset and re-run to get between programs.
- Pricey.

Basic Aid+

Pat McDonald rummages in a Basic toolbox

Basic Aid+

Basicaid Productions, £10.95 tape, £14.95 disk

Basic Aid+ is an 8k toolbox of extra commands that complement Locomotive Basic. Considering the relative ease with which the Amstrad CPC's can be given extra commands (or RSXs, Resident System Extensions) it is surprising that not very many toolboxes are available. *Basic Aid+* is different from most in that it is not supplied as a plug in rom, and is therefore cheaper.

The program supplies an extra 74 commands. These can be broadly split into three different groups; those which deal with graphics and sound, those which control the printer, and others for programming and debugging.

The graphical commands include 5 extra fonts for printing to the CPC screen. There is a gothic font – which would be handy if you were writing a swords and sorcery game, a bubble style suitable for games, a futuristic font, a stencil "war" type font and a line drawing font.

Another useful graphic command is Spscreen. This will split the screen into two modes of your choice. You could have Mode 0 in the top area and Mode 2 in the bottom part of the screen. Okay, okay, there are plenty of magazine listings to do this, but do you really want to go through all that type-in hassle? (Sit down, Mr Monteiro)

Many other commands are smartened up, simplified Locomotive Basic functions. For example, Gpen to set the graphics pen.

The printer commands are simple switches to set different styles and effects on a standard printer. These are bold, condensed, double strike, double width, italics, elite, NLQ, proportional, subscript and superscript. Using these commands is faster than delving into the printer manual.

The last, and potentially most useful, set of commands are used for programming and debugging. The number of lines in a Basic program, memory free, disabling the escape key, double Poke and Peek are some of the more useful options. An interesting command exists that enables you to scan through memory, printing up the ASCII code (and relevant graphic code for 0-31) of all the bytes between two supplied addresses.

The manual for this program is nothing special; being a collection of photocopied sheets stapled at the corner. It explains fairly well what each command does and includes several demonstration programs to illustrate this.

In short, *Basic Aid+* is a fair assortment of extra commands which could well prove useful to the Basic programmer. If you want a toolkit extension, but don't want to invest in a romboard, this could well be what you're looking for.

Basicaid Productions, 92 Hillside Gardens, Edgware, Middx, HA8 8HD

GOOD NEWS

- **Very competitively priced.**
- **Contains some original, useful commands.**
- **Only 8k long – shouldn't cramp your programs.**

BAD NEWS

- Mail order only.
- Packaging and presentation is minimal.

IT'S TAKEN FIVE YEARS

THEY SAID IT WOULD
TAKE LONGER

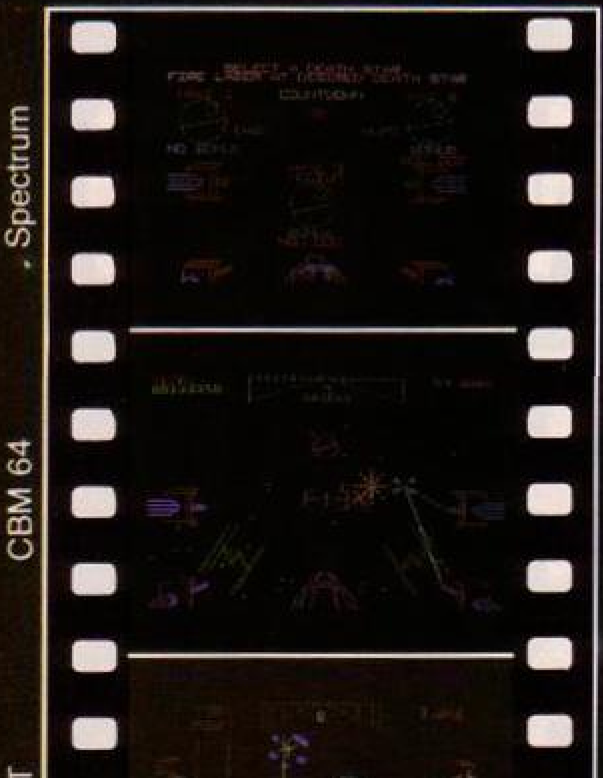
SOME SAID IT WOULD
NEVER HAPPEN

IT WAS TOO BIG
TOO BOLD

BUT NOW IT'S HERE
AND YOU'RE NOT
GOING TO BELIEVE IT

MAY THE FORCE BE WITH YOU. ALWAYS....

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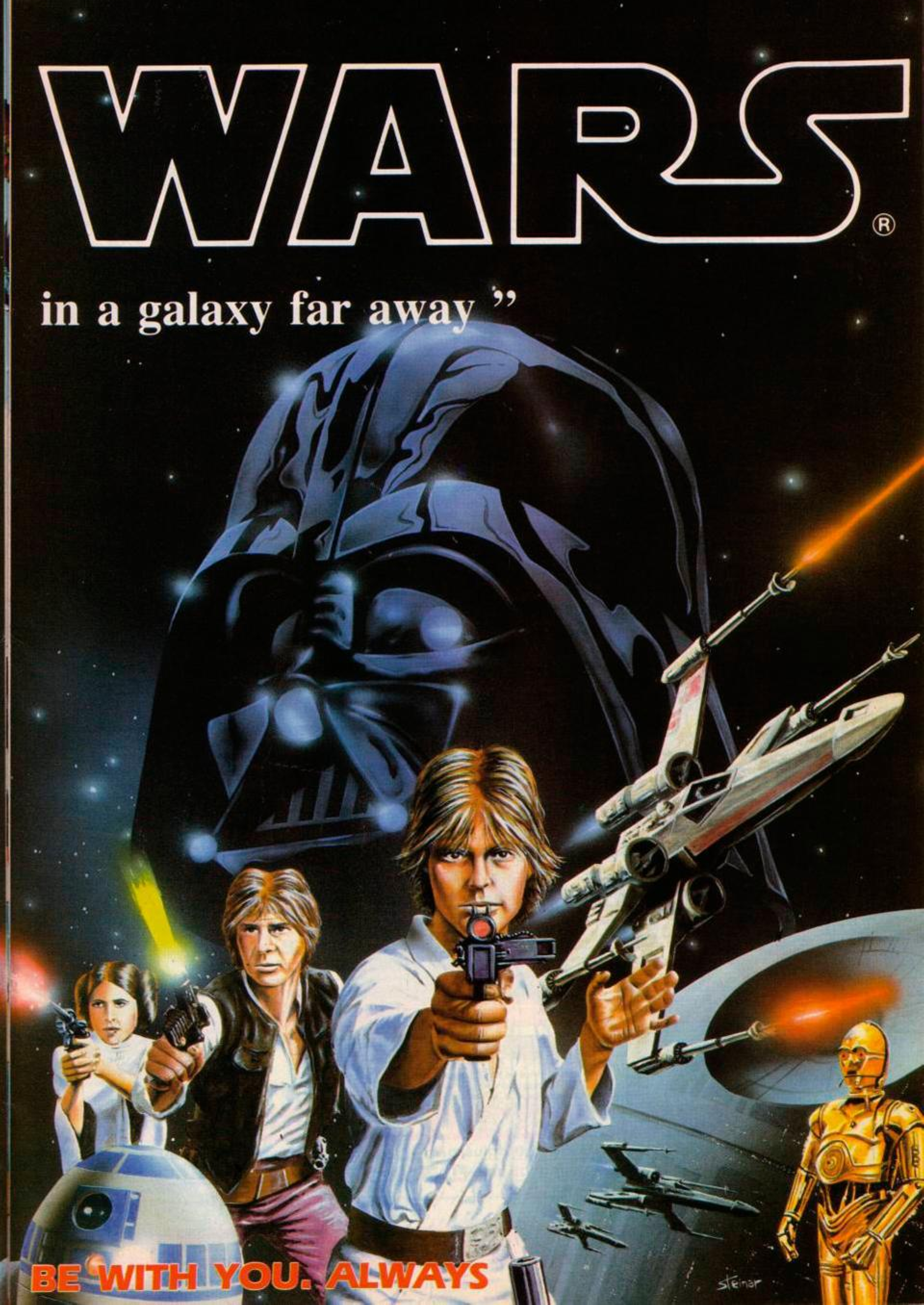
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MAY THE FORCE



WARS®
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ROMANTIC ROBOT *present*





Q: WHY WOULD I NEED THE MULTIFACE TWO?

A: Basically to make back-ups of programs on a CPC 464, 664 or 6128 and also to enable you to study, alter and customize them.

Q: OH, DO I NEED TO UNDERSTAND THE PROGRAMS OR EVEN ALTER THEM TO MAKE BACK-UPS?

A: NO! – NOT with the MULTIFACE TWO – it is in fact the ONLY product on the market which works FULLY automatically. You load any program as usual, run it for as long as you like and when you wish to make a copy you just press the MULTIFACE's red button and follow the menu and on-screen instructions.

Q: HOW DOES IT WORK THEN? IS IT EASY? USER-FRIENDLY? ERROR-TRAPPED? IDIOT PROOF? GUARANTEED?

A: YES! It works a treat and it could not be easier. The menu gives four basic options – to **SAVE** a program, to **RETURN** to continue it, to **JUMP** (say to your own routines – invaluable for hackers) and **TOOL** to access the MULTI-TOOLKIT set of built-in utilities. For example pressing **S** to **SAVE** will first allow you to **NAME** the back-up and then let you save a **PROGRAM** or just a **SCREEN** to **TAPE** or **DISK**. Before the saving itself, MULTIFACE compresses the program so that it takes the least amount of space on tape/disk and will re-load as quickly as possible. Once a program is saved, you can **RETURN** or **JUMP**, use the **TOOLKIT** to change it, **SAVE** it again, etc.

Q: DON'T YOU CORRUPT THE SCREEN WITH YOUR MENU, INSTRUCTIONS, PULL DOWN WINDOWS, ETC.?

A: NO. MULTIFACE TWO has its own memory (8K ROM & 8K RAM) and a lot more hardware – thus when it finishes its job or when you re-load your back-ups, everything is **FULLY** and **AUTOMATICALLY** restored. NOTHING else can do this and on all other devices you will need to try to restore the screen: its modes, colours, windows, etc. – this takes quite some time and effort and the failure rate is high...

Q: OK, SO MULTIFACE CAN COPY FROM TAPE TO DISC, BUT CAN IT ALSO COPY FROM TAPE TO TAPE OR DISC TO DISC OR DISC TO TAPE?

A: Of course it can. MULTIFACE saves either to tape or disc and it saves whatever happens to be in the computer at that time: it does not matter whether it was originally loaded from tape or disc or even typed in, so all combinations are possible.

Q: SO FAR SO GOOD. BUT CAN'T I DO ALL THIS WITHOUT THE MULTIFACE?

A: ABSOLUTELY NOT! First, you need a hardware device, a "magic box", to be able to stop and copy any program at any stage – no software-based copier can in principle ever do that. Any tape/disc copier will just try to copy a tape as it is – if there are unorthodox leaders, speedlocks, protections against copying, etc., you'll end up with a problem – but not with a back-up. If you wish to back-up any game at any point, be it upon loading or after going through the lenslock or half-way through, if you wish to poke infinite lives and then save, etc. – you just can't do anything like it with tape/disc copiers – you need the MULTIFACE!

Q: MULTIFACE IS NOT THE ONLY 'MAGIC BOX' ON THE MARKET – WHY SHOULD I BUT IT MORE THAN ANYTHING ELSE?

A: There are four devices on the market: Action Replay by Datel Electronics, Disc Wizard by Evesham Micros, Mirage Imager and MULTIFACE TWO. Each manufacturer would naturally argue his product is the best buy – fortunately (for you and us), MICRONET recently compared all four units and MULTIFACE TWO came out the best in literally all respects: the most successful one – 100%!, the ONLY AUTOMATIC ONE, the FASTEST ONE both in LOADING *AND* SAVING time, the one taking the LEAST ROOM when saving – and you still get a couple of EXTRAS: a RESET button and an extensive and unique MULTI-TOOLKIT.

The summary of MICRONET tests: "MULTIFACE TWO from ROMANTIC ROBOT wins easily on all features! It is faster, more convenient, more successful, uses less space and has more facilities!"

MULTIFACE TWO SIMPLY MAKES LIFE WORTH LIVING AGAIN !

RESET ● multiface two ● STOP

MICRONET RESULTS	ACTION REPLAY	DISK WIZARD	IMAGER	MULTIFACE TWO
Success Ratio	20%	40%	50%	100%
Average Saving Time	33.4sec	44.5	36.8	32.5
Average Setting (Correction) Time	1.5min	17.5	6.8	zero
Average Loading Time	21.7sec	40.7	36.6	19.7
Average File Size	68k	69k	53k	49k



Tape-to-disk at the touch of a button. Ridiculous, you may say, but it works every time. *Multiface* can stop any program in its tracks and save the program from memory to either tape or disk. It's completely foolproof. Similar products have had problems with screen size, colour and even sound; *Multiface* can handle all these without a second thought.

That alone would have satisfied many people, but Romantic Robot has gone one step further, incorporating a memory editor. No program is safe with this: everything is out in the open, including the Z80 registers, CRTC data and any part of memory.

Don't be fooled into thinking this will result in mass piracy, however. The *Multiface* unit itself must be plugged into your Amstrad to allow reloading of a program it saved.

Multiface II must be the cleverest hardware device at present – a necessity for disk owners who thought they were stuck with loading from tape every time.

AMSTRAD ACTION JANUARY 1987

The special price of £42.00 applies strictly to mail orders received with the coupon below before the end of November 1987.

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Chip Chat

Build an RS232 interface for less than £12. John Harden is your expert guide.

When I bought my CPC 6128 it came with a serial printer, *Mini Office II* and a serial adaptor plus software for the printer port. Unfortunately the adaptor doesn't give true RS232 voltage levels nor does it drive my Brother EP44, or the other serial printers I have access to. To remedy this I designed an interface which supplies correct voltage levels and drives any RS232 compatible printer. It is simple to build and a good deal cheaper than a full RS232C interface.

The CPC's Centronics printer port uses +5 volt and O volt TTL logic signals, but most serial printers require -9 volt and +9 volt logic. This driver unit uses the MAX232C chip, IC 2 in the diagram, which generates the required voltages from its 5 volt supply, and translates signal levels both to and from the printer. IC 1 inverts the data before conversion.

The short program at the bottom of the page forces the parallel data from the CPC serially onto pin 2 of the printer port (the manual has a diagram of it), and holds pin 1 at 5 volts to power the unit.

Underground connexions

Construct the unit on a small piece of "vero" strip board. Start by making the cuts in the tracks as shown in Diagram 2, then mount the components on the plain side as in Diagram 1. Check the orientation of each one before soldering. Work quickly with a small hot iron to avoid overheating. Finally add the wire links and connecting leads.

Connection to the computer is via a piece of single sided edge connector with a least 16 contacts. Pin 17 of the printer port is not used. Note the locating key between pins 4 and 5 to match the slot in the CPC's circuit board; this can be a piece of thin plastic glued into the groove between the connector pins.

The printer lead needs at least three wires, preferably in screened cable. I have shown the usual 25 way D-plug, but this may vary so consult your printer manual for its connections. Usually only received data RX (pin 3), ground GND (pin 7) and data terminal ready DTR (pin 20) are required. If any other pins need to be held high they can be connected to the +9 volts of IC 2 as shown in the diagrams.

Parts list

Integrated circuits	IC 1 — 74LSO3, IC 2 — MAX232C
Diode	D 1 — 1N4148
Capacitors	C 1-4 — 22uF 16V Min. Electrolytic
Edge connector	16 way single sided
Circuit Board	10 strips with 20 holes, 0.1 matrix

Most of the parts listed should be obtainable from any electronics component suppliers. The MAX232C IC is in the current Maplin catalogue (as are all the other parts) which is on sale in WHSmiths. Maplin, incidentally, contains several CPC interfaces and a ROM board in the projects section. The cost of the parts listed is approximately £12. A small plastic box is ideal for keeping the unit secure.

The final countdown

If you wish to use the adaptor and serial printer from within *Protext*, *Tasword* or other programs that don't have a serial printer option then run the program below first.

```
10 RESTORE 40:SYMBOL AFTER 256:MEMORY HIMEM-47:M=HIMEM+1
20 FOR Q=M TO M+45:READ A$:POKE Q,(VAL"&"+A$):NEXT Q
30 H=INT(M/256):L=M-H*256:POKE &BDF2,L:POKE &BDF3,H:OUT &EF00,0
40 DATA F3,C5,E5,D5,01,00,F5,2F,57,ED,78,CB,77,20,FA
50 DATA 01,01,EF,ED,49,1E,0A,7A,21,73,00,F5,2B,7D,B4
60 DATA 20,FB,F1,ED,79,BF,1F,1D,20,EF,FB,D1,E1,C1,37,C9
```

Use these settings for the printer: 1200 Baud, 8 bit, no parity, 1 stop bit, handshake on. This works with any Amstrad CPC machine.

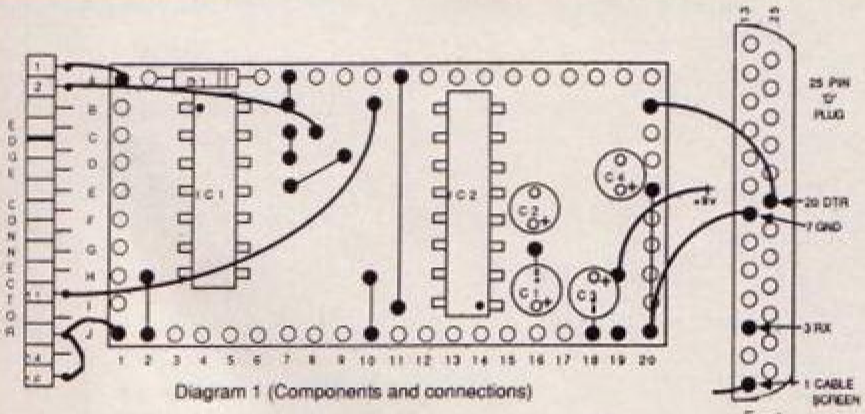


Diagram 1 (Components and connections)

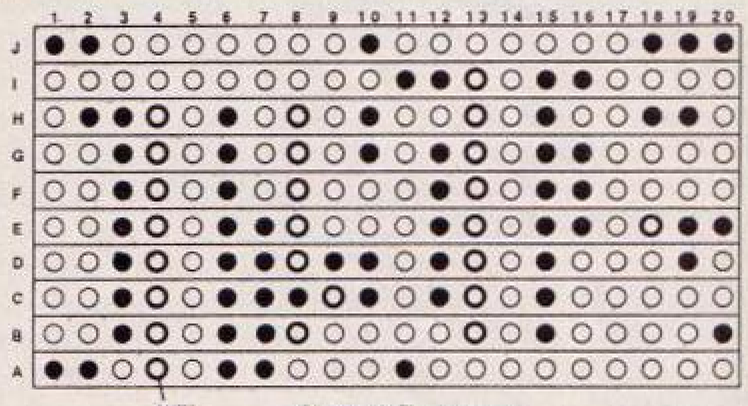
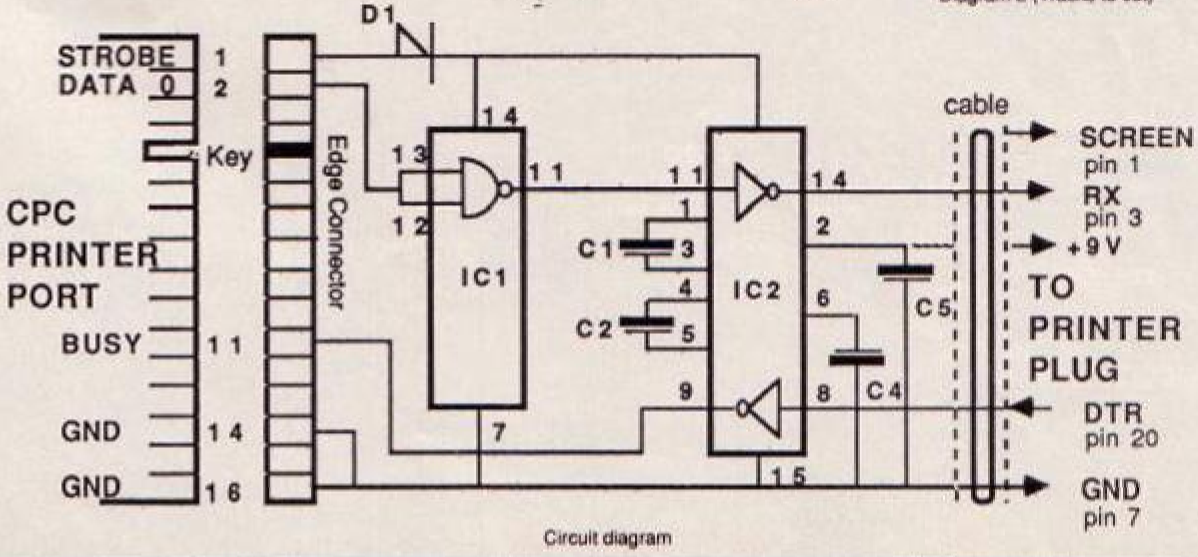


Diagram 2 (Tracks to cut)



Circuit diagram

PROBLEM ATTIC

RpM goes on his latest problem solving escapade. If your CPC's in danger, if you need help, then perhaps you can contact the AA team.



Logging on

I would like to know how to call an RSX from machine code. I know it is necessary to call **KL_FIND_COMMAND**, but what then? I have tried using a **RST 3** (far call) as described in SOFT 968, but the computer crashes. The command I wish to access is **|DISC**. Help.

Stephen Lawson
Stoke-on-trent, Staffordshire

To issue a bar command or RSX from code you must first find its execution location. This is done by first pointing HL to the address of the command name and issuing a **CALL &BCD4**. *Note that the last letter in the command name must have its high bit set (that is: &80 or 128 added to it). The HL returns with the execution address while C holds the rom number.*

Store the returned values, ensure the A register contains nothing and use ***RST 3*** *to execute the command.*

Note that some assemblers don't use ***RST 3***, *but rather* ***RST #18***. *The* ***RST 3,store*** *in the above example would be rewritten as:*

```
RST #18
DW store
```

Diminishing dimensions

Some months ago I almost sold my 6128 in despair: almost every Type-In I have tried doesn't work – your magazine was not the only one to blame. The most frequent error being "Array already dimensioned." It seems that any listing that dimensions arrays won't work. A recent example from AA being Memory by James Church (issue 24). It comes up "Array already dimensioned in 110" when it reaches line 130. Is every listing I enter wrong? Is my 6128 at fault?

Paul Gosling
Desborough, Kettering

I suspect the reason you're getting such error messages is that you type in a few lines, test what you have entered, type in a few more lines, test what you have written again and so on. Arrays are awkward beasts as they can only be dimensioned once in program. For example, try running the short listing below:

```
10 DIM a$(10,10)
20 DIM a$(10,10)
```

You are experiencing a similar problem. Reset the computer and enter the line ***10 DIM a$(10,10)***. *Run the program. Now enter* ***GOTO 10*** *in direct mode. See that annoying message appears again. There are two ways of getting round this. Either enter* ***RUN*** *(instead of* ***GOTO****) when you wish to test what you have typed in, or erase the previously dimensioned array (****ERASE a$*** *in this case).*

Memory restriction

Normally I work with CPM plus, but recently I have been known to use CPM 2.2. I have been trying to get MOVCPM.COM to work. Unfortunately one of three things happen:

1. INVALID MEMORY SIZE appears and CPM reboots.
2. SYNCRONIZATION ERROR appears and CPM reboots.
3. CPM crashes.

Using SID and DDT I discovered evidence of a command tail, but all the books and CPM users I have consulted have shied from the subject. Perhaps you can tell me the correct procedure for using MOVCPM?

Cormac McGaughey
Cushendall, Co Antrim

CPM 2.2 can be tailored to fit into the amount of memory your computer has (up to 64k). The CPC nobbles 16k for the screen which leaves roughly 40k of program area (remember the CPM operating system occupies 8k). Occasionally it is necessary to reduce (or enlarge) the memory area for certain reasons. MOVCPM is the program that does the job. Two parameters may follow it: the first is the high byte of the highest memory location CPM may use, the second optional parameter is the star (*). If this is present a message similar to "SAVE 34 CPM38.COM" will appear.

*Say you wished CPM to occupy 32k. Enter MOVCPM 130 * at the A> prompt. You will be greeted by SAVE 34 CPM32.COM or similar. If you wish to make the change permanent (that is, write the new version of CPM to the system tracks) enter SYSGEN *.*

The reason you got system errors, Cormac, is due to the values you enter after MOVCPM. If you try creating a CPM size lower than 16k you'll get the message INVALID MEMORY SIZE – too high and the machine crashes. I have yet to see SYNCRONIZATION ERROR, but it's probably due to one of the reasons mentioned.

Drive dilemma

Due to the fact that I'm a student (and therefore skint), I was unable to buy a 6128 and had to resort to a 464 – hoping eventually to save up for Amstrad's DDI-1 disk drive and interface. I presumed my only problem in obtaining a disk drive and interface would be raising the money. You can imagine my surprise and disappointment when I walked into my local computer shop and was greeted by a salesman who, when I asked for the drive and interface, replied that there was no longer a supplier for the DDI-1 package.

After doing the rounds of all major computer selling shops I picked up the information that Amstrad had stopped making the disk drive. Is this true? Can you put me onto someone who would be able to supply me with the package?

Gareth Baker
North Ferriby, North Humberside

A phone call to Michael Joyce Consultants (Amstrad's public relations agency) revealed the following from a spokesperson: "as far as I'm aware Amstrad are still in full production of the DDI-1." When quizzed why many users were having difficulty obtaining a drive, "probably a few isolated inciaents" was the reply.

If you can't get one from Amsoft (0277 228888) try the Leek Computer Centre on 0538 387859 – they appear to have a large stock. Your other alternative is to try and get one second-hand: look at the Small Ads section or try Micro Mart.

An arrow for the lady

My computer has clapped out: when I switch on the 464 on the same line as the BASIC 1.0 message several up-arrows and other symbols appear. Several keys on the top row fail to function and I can no longer reset the machine using Ctrl-shift-esc. What's wrong and where can I get it fixed?

Sam Beale
Dunstable, Beds

We had similar trouble with one of our computers. The problem arises if the CPC has either a faulty AY-3-8912 chip (which is used for keyboard scanning and sound production) or a broken keyboard membrane (the membrane is located under the keyboard, and not surprisingly receives a fair few knocks during its life). Software Plus in Bath (0224 448855) fixed our Amstrad for a reasonable amount. You should be able to get yours done locally for around £30.

Messy screen

How can I load a screen dump and save it to another disk without having SAVE"screen",b... over it?

Matthew Clements
Romford, Essex

The simplest way to do this to type the following in direct mode:

```
MODE 1:LOAD"screen",&C000:CALL&BB18:
SAVE"screen",B,&C000,&4000
```

The **CALL &BB18** *waits until you press a key before saving the required screen.*

For Art's sake

As an artist I enjoy using Rainbird's *Art Studio*. Recently I have upgraded to the *Advanced Art Studio* and run into a problem. The original *Art Studio* comes with a Basic file for loading screens and colours created with the package. I can use the loader for Mode 1 and 2 pictures created with the new *Art Studio*, but not those created in Mode 0. Could you supply me with a listing that will load all *Advanced Art Studio* files?

Erik Casey
Hemel Hempstead, Herts

Rainbird are aware of this fact, but couldn't offer a solution. Perhaps someone has overcome the problem? If so, please write and tell us.

Left or right?

I recently purchased a DDI-1 disk drive to complement my 464. The drive instruction manual states: 'It is recommended that you locate you disk drive(s) to the right of the computer (or MP-1 modulator/power supply if used).' I would like to position the drive to the left of the keyboard... but was wondering if I would be doing something wrong?

Warren Gregory
Finchley, London

It doesn't matter which side you place your disk drive. What does matter though, is ensuring that the drive isn't close to the monitor or any large current-carrying wires (that is, magnetic fields). Tiny signals are sent from the computer to the drive through the ribbon cable; it doesn't take a very large magnetic field to disrupt the signals. This could lead to information being read or written incorrectly.

Teaching problems

I am a teacher (Head of Special Needs) in an Upper School and hoped that, apart from my son playing games on the computer, I would be able to help in the administration of my department. What I would dearly like to do is store and print:

1) List of pupils — plus information regarding grades, dates of birth and so on.
2) Ongoing reports of individuals so that I can see the progress they have made during the three-year course.
3) Worksheets.
4) Departmental accounts.

My real problem is reading my handbook. I can read the words, but don't understand what I am reading. All those I teach with reading problems now have a great deal more sympathy from me as I understand their problems totally.

I hope that amongst your readers there are some teachers who actually use an Amstrad for the purposes I would like to use it for.

Is there a supplier that sells the software I need? I have given up the thought of programming myself as Amstrad's handbook makes awful reading.

Please, is there any software or books you can suggest?

Ruth Newbury
Bedfordshire

The best program for storing names, grades and other statistics — and having the option of editing, deleting and inserting new data as time goes on — is a database. Probably the most user-friendly for the Amstrad is the Database Manager from Advance Promotions (0279 412441). It has an exceptional manual for the beginner and has enough power for your needs. Price is £29.95.

If its facts and figures you wish to store then First Calc from Minerva Systems is the best. By far the simplest to use, but the manual leaves a little to be desired. Minerva is on 0392 37756. Price for the spreadsheet is £29.95.

If anyone has written software that does more precisely what Ruth requires then please get in contact with us. We'd be delighted to publish any information about such software.

Coded Keys

Could you suggest an efficient technique that waits for, and accepts, numerical input directly (that is, not Ascii coded) in the course of a machine code program.

G Williams
Gisborne, New Zealand

```
ORG &8000

LD (stack),SP
CALL &BB81
LD HL,buffer
LD B,0

loop
CALL &BB18
CP &7F
JR NZ,check
LD A,B
AND A
JR Z,warning
LD A,8
CALL &BB5A
LD A,16
CALL &BB5A
DEC B
DEC HL
JR loop

warning
LD A,7
CALL &BB5A
JR loop

check

LD (HL),A
CP &D
JR Z,quit
LD C,A
LD A,B
CP 5
JR Z,warning
LD A,C
CALL &BB5A
INC B
INC HL
JR loop

quit
LD C,0
LD DE,0
LD HL,buffer

change
PUSH HL
LD A,(HL)
CP &D
JR Z,done
SUB &30
JR C,error
CP 10
JR NC,error
PUSH AF
LD HL,0
LD A,10
LD B,8

shift
ADD HL,HL
BIT 7,H
JR NZ,error
RLA
JR NC,down
ADD HL,DE
BIT 7,H
JR NZ,error

down
DJNZ shift
POP AF
ADD A,L
LD E,A
LD A,0
ADC A,H
LD D,A
BIT 7,D
JR NZ,error
POP HL
INC HL
JR change

done
BIT 7,C
JR Z,okay
LD HL,0
AND A
SBC HL,DE
EX DE,HL

okay
LD (number),DE
JR finish

error
LD HL,0
LD (number),HL

finish
LD SP,(stack)
RET

number
DW 0
stack
DW 0
buffer
DS 6
```

The above routine accepts 16-bit decimal as input – anything else is discarded as an error will occur. If an error occurs (that is, you entered anything above 32767 or characters other than numbers) then number will hold zero. The routine is not particularly user-friendly as negative numbers cannot be entered. There is plenty of scope for improvement such as better error-checking, signed decimal input and the inclusion of a hex input sub-routine. That I leave to you.

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Amstrad Action, Oct 87

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ACCESS

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VISA

ACTION TEST

The Christmas rush has begun and it's already starting to show in the quantity and quality of games being released. The Mastergame is *Red L.E.D.* which combines the looks of *Spindizzy*, the strategy of *Blockbusters* and the action of a shoot-em-up, to make one superb game. Close behind is Thundercats, another cartoon licence, but one that proves that licences can be good games too.

Spanish programmers Dinamic have come up with their best yet – it goes by the strange name of Freddy Hardest, but you're the one that's got to be tough.

New label Go! has an excellent game called Trantor: the Last Stormtrooper, while parent company US Gold also has Killed Until Dead, a very ingenious murder, mystery game.

Finally an apology for missing the Grab Factor rating off Survivor last month. It should have read 66% and not 00%.

KILLED UNTIL DEAD

US Gold, £9.99 cass, £14.99 disk, joystick or keys

RAVE

As Hercule Holmes you must stop a murder which is due to occur at midnight. The victim, murderer, weapon, location and motive of the murder are unknown. You must solve this mystery before the evil deed is done.

The scene of the crime is the Gargoyle Hotel where the worlds five leading mystery authors, known as the Midnight Murder Club, are holding a festival of murder and mayhem.



Talking to Lord Peter Flimsey over the phone

Murders are graded in four levels of difficulty, "Elementary, my dear Watson", "Murder Medium Rare", "Cases for the Cunning" and "Super Sleuth". When you have chosen the difficulty you are given a choice of several crimes to choose from. In all there are twenty-one crimes to choose from, split over the four levels. Once a crime is chosen the main game loads and the clock starts at noon on the day of the murder, giving you twelve hours to solve the crime.

On the menu screen there are four options which are, surveillance, telephone, notes and files. Files gives you background information on the five authors: Mike Stammer, Agatha Maypole, Lord Peter Flimsey, Claudia von Bulow and Sydney Meanstreet. Notes provide any information you've obtained from telephone calls or surveillance.

Surveillance is sub-divided into monitor, break-in and tape. The monitor is a camera system which allows you to spy on the various parts of the hotel and store the information in your notes. Break-in uses a mystery trivia quiz to decide if you can break-in to an author's room or not. If you succeed you'll find out what people keep in their rooms. This information is also stored in your notes and gives insight into the authors weak spots. Tape allows you to record conversations in up to three rooms, and store them in your notes.

Incoming calls and outgoing calls are possible on the telephone. Incoming are either anonymous or from one of the authors. Outgoing are only to the authors. When you call the authors for the first time a list of four things to say appears on screen. You must select one of these, which is where the break-in notes come in handy. If it is incorrect then they hang-up, but if you are right then you can ask them some questions about the crime, in traditional Cluedo style. Every time you ask a question which is connected to the crime the author's picture on the screen gets a little more flustered and edgy. Three correct questions in a row gives a positive piece of evidence and a complete nervous wreck on the screen.

When you think you know everything about the crime you can phone the killer and confront him or her. If you have identified the victim, location, killer and weapon then you must specify the motive of the murder. If you're correct on all counts then the crime has been stopped you can get a full explanation of the story behind it. If you're wrong then you become a victim and are killed.

SECOND OPINION

It's not often that computer games get me laughing out loud, but this one has succeeded. The animated pictures of the authors are marvellous, and some of the text descriptions are pretty special as well. The fact that there is usually a short cut to solving each crime is disappointing, but if you stick to the rules it's a lot of fun. **BW**

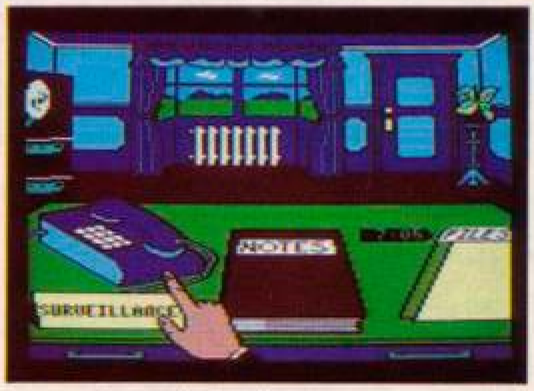
GREEN SCREEN VIEW

No problems for the great detective in green.

Sound is used to good effect , each author has a tune associated with them. Colour is used well throughout the game and the animation of the authors is extremely funny.

The main problem with the game is that you can often just guess your way through the crimes without actually knowing all the evidence. You can play it properly and then solving a crime gives you a good deal of satisfaction.
GBH

FIRST DAY TARGET SCORE
Solve a crime on Murder, Medium Rare.



Let your fingers do the walking.

The Verdict

GRAPHICS 87%
- ☐ Great animation.
- ☐ When you get three questions in a row the effect is hilarious.

SONICS 72%
- ☐ Each character has their own tune.
- ■ The tunes are not brilliant.

GRAB FACTOR 83%
- ☐ Well presented and easy to get into.
- ☐ Solving a crime is tricky.

STAYING POWER 78%
- ☐ 21 crimes will keep you burning the midnight oil.
- ■ Each crime is solved in a very similar way.

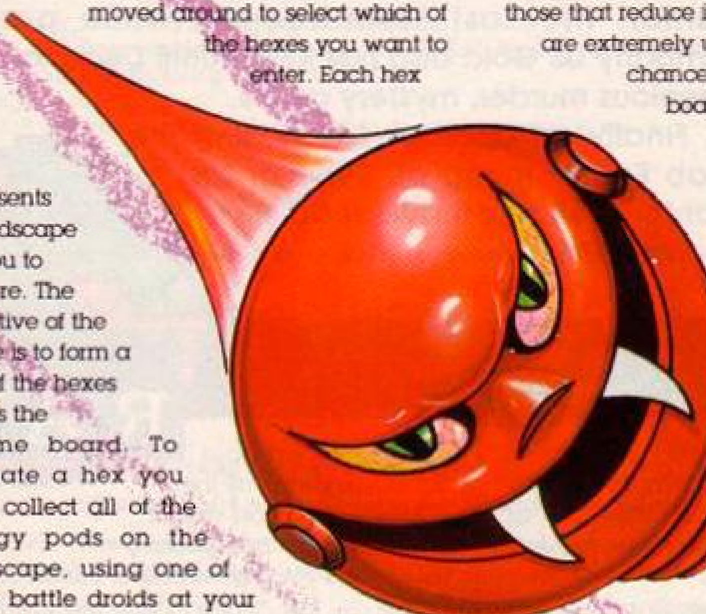
AA RATING 80%
- ☐ A novel and humorous game, with something new to offer.

RED L.E.D.

Starlight/Ariolasoft, £9.99 cass, £14.99 disk, joystick or keys

Red L.E.D. is a game which at first sight is just another *Marble Madness* clone. You won't have that impression for long because shooting, board game strategy and many original features, take you deep into the realms of addiction.

The game takes place on a grid of thirty-seven hexagons where a hand can be moved around to select which of the hexes you want to enter. Each hex represents a landscape for you to explore. The objective of the game is to form a link of the hexes across the game board. To activate a hex you must collect all of the energy pods on the landscape, using one of three battle droids at your disposal.



Before you enter a landscape you must select a battle droid to do the task of recovering all of the energy pods. There are three to choose from, each one having different capabilities. Once a droid and landscape have been chosen the clock starts to tick away the hour in which you have to complete the game. The landscapes are made up of slopes, acid lakes, flat terrain and holes. They look good and you can scroll quite smoothly around them.

Falling through a hole loses you a valuable minute as the droid tries to re-orientate himself. The acid lakes drain your limited energy supply for as long as you are on the acid, unless you are using the turret shaped droid which can travel over the acid unharmed.

Enemy droids live on the landscapes and they try to stop you from taking the energy pods. Collision with any of them drains your energy supply and if you run out of energy that droid dies. The enemy droids can be shot with the laser that each of the droids carries. There are also droid generators which can be destroyed by shooting them. They're destroyed if you bump into them, but since this drains your energy supply substantially it's not a good way to do it.

Other objects are also scattered on the landscape and can be collected. Smart bombs can be found and are activated the next time you press fire. They clear the screen of all enemy droids and droid generators. Droid freeze is a screw like device which causes all droids on the landscape to be incapacitated while they try and find the necessary frequency to jam the signal.

Ice switches freeze the surface of the acid lakes and allow all droids to cross the acid unharmed. The acid lakes will eventually melt again and you had better make sure that you are not on the surface when they thaw completely. Teleport pads allow you travel to the next teleport pad in the sequence. If there are teleport pads on a level then there will be at least two and usually there are three or more.

Time capsules come in two varieties: those that add to the time remaining and those that reduce it. The time gain capsules are extremely useful and give you a better chance of making a line across the board, but the time loss make it much more difficult. Fortunately the two can be distinguished.

Once all of the energy capsules are collected the exit will be activated and you must make your way to it. If the exit is activated then you will exit the landscapeand that hex will flicker on the hex grid. That is your first link on the board. If you abort a landscape or a droid is killed on one then you won't be able to enter that hex again and it will change colour to white. When a droid returns from a landscape, whether aborted or completed, the energy of the droid will be replenished.

A letter of the word "bonus" appears every ten thousand points and if all five are collected then a bonus level is accessed. Here the previous landscape is replayed with immunity to the terrain. Your droid will



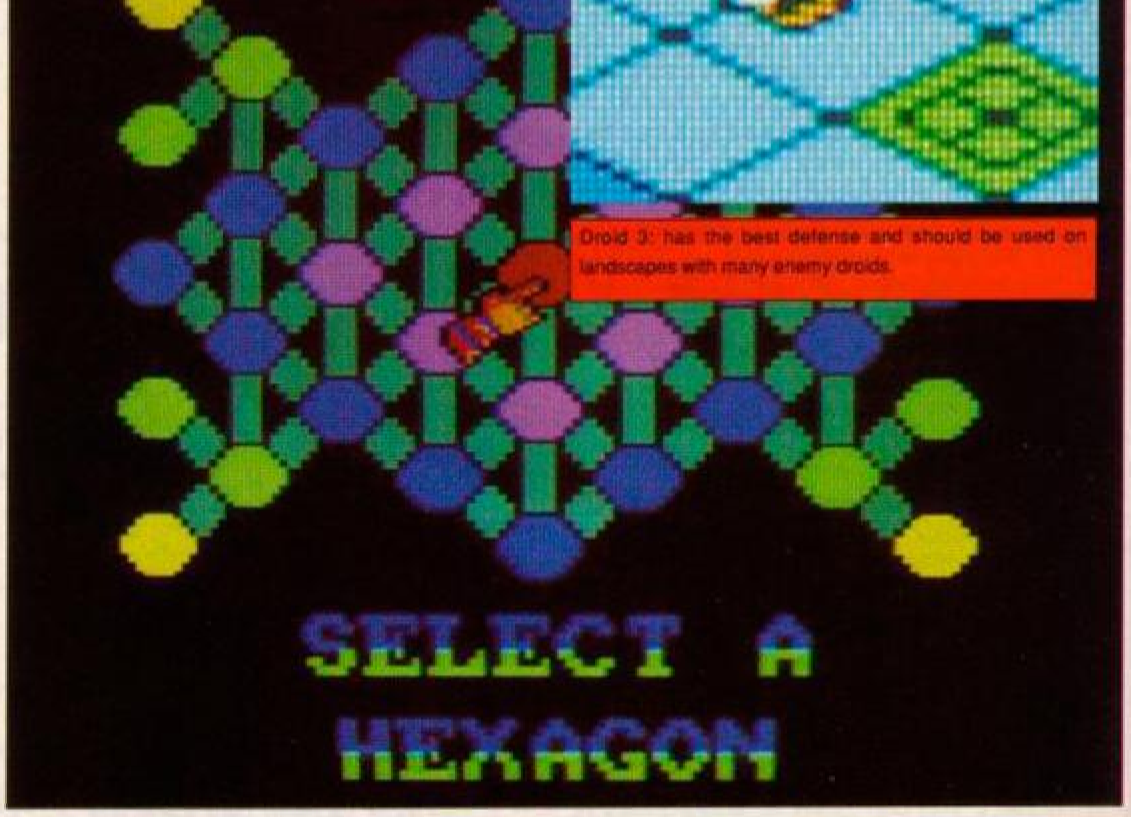
Droid 1: has the best control characteristics and should be used on landscapes with many dangerous drops.



Droid 2: can hover over acid and take no damage.



Droid 3: has the best defense and should be used on landscapes with many enemy droids.



STER
ME



Droid 3 stands next to a teleport pad with a droid freeze nearby in case of trouble



Energy pods: these are what you must collect.

have his energy replenished and you will gain valuable time. Bonus droids are awarded for every 100,000 points that you score.

The scrolling of the playing area is smooth, but a little slow. Colour is used well and the three droids move around well. All of the hazards and objects are easily identifiable.

Red L.E.D. is in some ways similar to the game *Blockbusters* in that you must link both sides of the board with adjoining hexes. The difference is that *Blockbusters* was a mental game (?! – ed) and *Red L.E.D.* combines it with the excitement and addiction of an arcade game. The combination works well and with three droids to choose from careful planning is needed. You need to make sure that you don't waste energy sending unsuitable droids for the landscape selected. Originality and stunning gameplay make this game worthy of the title Mastergame.

GBH

FIRST DAY TARGET SCORE
75,000 points

SECOND OPINION

I'm still a big fan of the all-time classic Spindizzy, so I was looking forward to a game which looked to have similar graphics. It turns out to have little in common except the graphics, but it should be as succesful a game. The introduction of shooting and other features to this futuristic arena makes for a great game. It takes a while to appreciate properly, but it's well worth the effort. **BW**

GREEN SCREEN VIEW

No problems at all in monochrome.

The Verdict

GRAPHICS **86%**
- ☐ Smooth scrolling landscapes.
- ☐ Good use of colour.

SONICS **42%**
- ■ Relatively poor effects.

GRAB FACTOR **92%**
- ☐ Simple gameplay hides a great game.
- ☐ Exploring the landscapes is difficult at first, but enjoyable.

STAYING POWER **93%**
- ☐ Forming a line across the board will take a long time.
- ☐ Being able to choose your route adds strategy to the game.

AA RATING **92%**
- ☐ Superb cross between Spindizzy and Blockbusters, with a shoot-em-up element thrown in.

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"California Games is quite simply the apex of computer sports gaming.

Even in purely technical terms Epyx have somehow managed to surpass their own high standards – the pictures and sounds generated by this program are atmospheric beyond belief.

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– ZZAP 64.

"California Games has to be the best release this year so far.

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– COMMODORE COMPUTING INTERNATIONAL.

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EPYX®

MOTOS

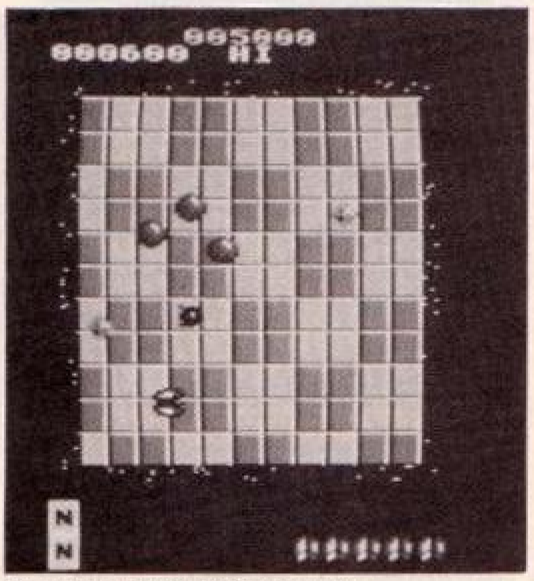
Mastertronic, £2.99 cass, joystick or keys

Arcade conversions are regulars on the home micro scene, but on a budget label they are rare. *Motos* is one such conversion and is all about Space Bees and your attempts to defeat them.

You must defend the solar base from the attacks of the Space Bees and to do this you must simply push them off the solar base, so that they fall into the infinity of space. Unfortunately you can also be pushed over the edge. The bases are two dimensional and viewed from above. They are composed of coloured squares in differing arrangements for each of the sixty two levels.

Each level is completed by pushing all the Bees off the base. When this is done you progress to the next level. Another problem is that if you are on a level for too long then shooting stars appear and start destroying the squares on the base. They home in on you, so the only way to stay alive is to keep moving. However, the Bees can also fall prey to the stars if you're lucky.

Sounds simple enough, but the Bees come in different strengths and if you don't have enough power then they can easily push you around. The first few levels have İonly the weaker Bees, but the tough guys appear soon after. To push off the tougher Bees you need a more powerful engine. This is achieved by picking up Power Parts. At the start of each level the power of your engine can be increased with up to seven power parts. Careful selection of engine power is needed since the power parts can only be used once.



Power Parts give you more bounce power.

Some screens have gaps which you can jump if you have Jump Parts. Jump parts are picked up in the same way that power parts are, but only one power of jump is needed. As well as clearing gaps this also enable you to destroy squares by jumping on them twice. This can be handy in despatching Bees, but be careful not to fall down your own holes.

On some screens there are Navicons which spit out lots of Bees and make progress more difficult. They can't be destroyed, you just have to kill Bees faster than it produces them. Beacons can be pushed off the base for bonus points. Don't get too greedy though, it always results in losing a life. Every ten levels you get an extra life.

Even though the layout on the screen is simple, colour is used effectively. The sprites move about smoothly, but there is little animation. Music plays throughout the game and it does get tedious. An option to turn off the music, in favour of sound effects, would have been nice. There are only a few in game effects which are for bumping into things, explosions and shooting stars.

Although the game is simple in design it is fiendishly addictive and you'll be constantly having just one more go to get to the next level. Choosing the power of your engine adds strategy to the game. At a budget price you should not be without this game. **GBH**

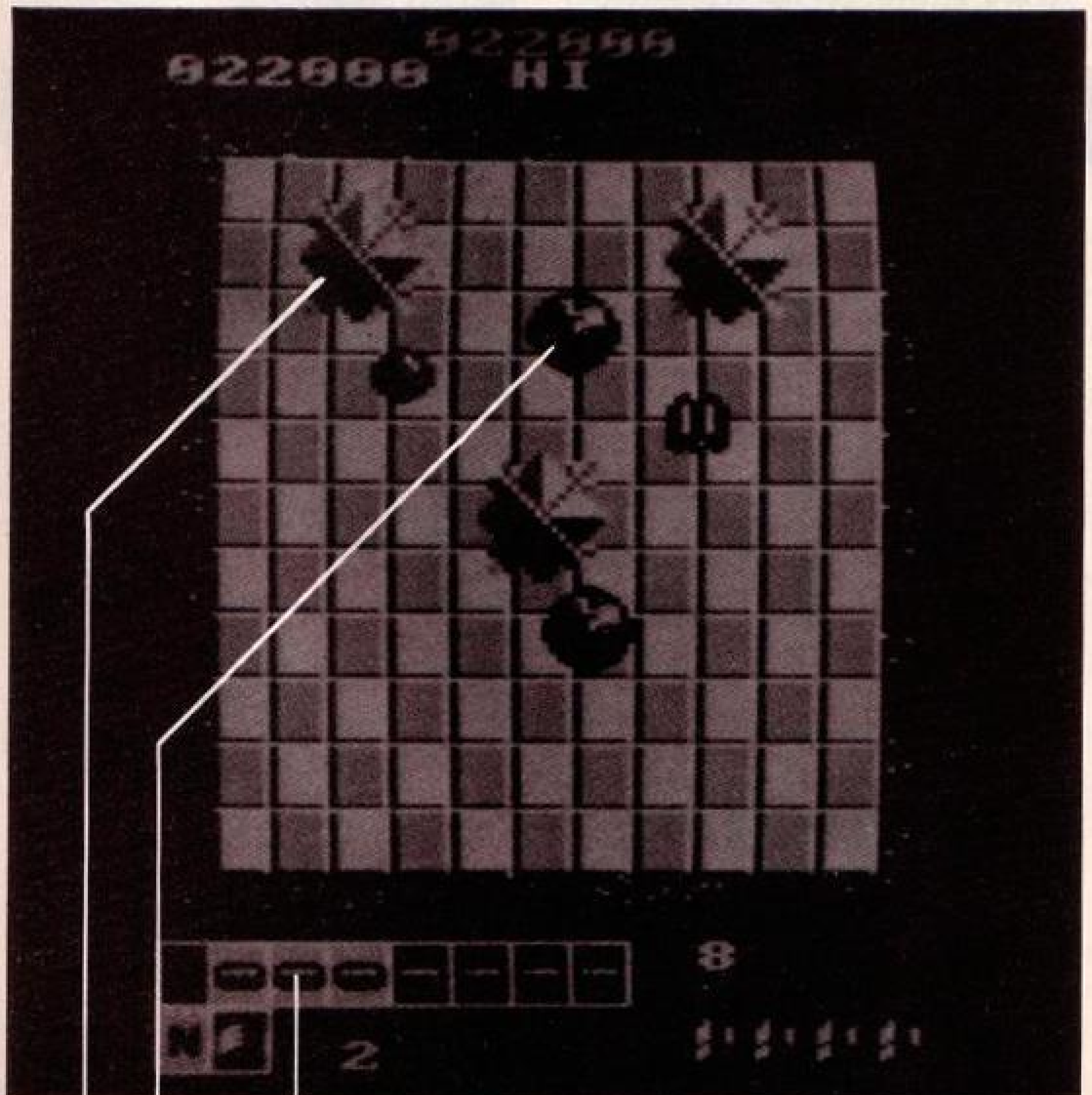
SECOND OPINION

Simple ideas very often produce the best games, such is the case here. Bumping the bees is easy to start with, but as you have to start judging the strength to use and fight against ever increasing odds, it gets very addictive. It will be a shame if the budget houses also start getting obsessed with arcade conversions, but if they keep up this standard it will be hard to argue with it.

BW

GREEN SCREEN VIEW

Green Bees are no problem.



Jump Parts allow you to take giant leaps forward.

Large saucer objects need stronger engines to be pushed.

Navicons spit out more balls at you.

FIRST DAY TARGET SCORE

Complete 15 levels

The Verdict

GRAPHICS **76%**

- ☐ Good use of colour.
- ■ Sprites are a bit small.

SONICS **43%**

- ☐ Spot effects are good.
- ■ Terrible music.

GRAB FACTOR **79%**

- ☐ Simple gameplay gets you hooked.
- ☐ Strategic element in the Power Parts.

STAYING POWER **83%**

- ☐ Sixty two levels to complete.
- ■ Similar techniques needed on each level.

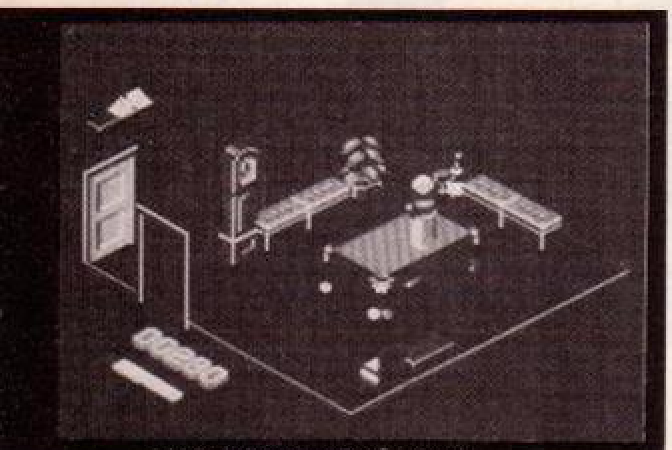
AA RATING **82%**

- ☐ Good arcade conversion, and at a budget price.

INSIDE OUTING

The Edge, £8.99 cass, £14.99 disk, joystick with keys or keys

Inside Outing is a treasure hunt in which you wander around a house looking for jewels. The jewels are hidden and you must find them by solving a number of puzzles in the maze of rooms. When you have found a jewel it must be returned to the owner of the house who is in one of the bedrooms. The screen display, game format and main character are all very similar to *Get Dexter*.



It looks and plays just like *Get Dexter*

There are twelve jewels to be found and devious puzzles must be solved to get the jewels. One jewel is in the snooker table and to get it you must pot all of the balls on the table in the correct order. If you do then the jewel will drop out. Unfortunately the jewel is under the table and you must then find a way to get it out from under the table.

Objects come in three varieties: the first can not be moved, the second can only pushed or pulled and the third can be carried around. You can jump on top of objects to help you reach higher and stack objects one on top of the other. Most of the rooms contain birds or mice that drain your energy when they touch you. You can replenish your strength by drinking wine from glasses found in many rooms.

The characters are big and well animated with colourful scenery in the rooms. There is no tune in the game but there are effects such as your footsteps and a ringing telephone.

SECOND OPINION

I'm not in the least bit tired of the format. Just because it's a 3D game, everybody screams 'Knight Lore rip-off'. It's not the format that gets stale, but the ideas of the authors for using it. This one is clearly a Get Dexter *derivative, but that was a brilliant game. I don't think this one is as good because it lacks the sense of humour and is a little too similar to the French classic. It's still got plenty of challenge to it, which* Get Dexter *fans should like. Gary and I agree to differ on 3D games, they're very much a matter of personal taste.* **BW**

GREEN SCREEN VIEW

No real problems except for the snooker table which a bit tricky in green.

The Verdict

GRAPHICS 78%
- ☐ Good use of colour.
- ☐ Large well animated characters.

SONICS 37%
- ■ Not much sound at all.

GRAB FACTOR 65%
- ☐ Fans of this game format will love it...
- ■ but you may be getting tired of it.

STAYING POWER...... 73%
- ☐ Collecting all twelve jewels will take a long time.
- ■ Building stacks of objects to reach something is boring.

AA RATING 69%
- ☐ You either love them...
- ■ or hate them.

If you like this type of exploration game then *Inside Outing* could keep you occupied for a long time. There are many games of this type and it's no worse than any of the others, but I am getting a bit tired of the format. **GBH**

FIRST DAY TARGET SCORE

Collect two jewels

JACK THE NIPPER II

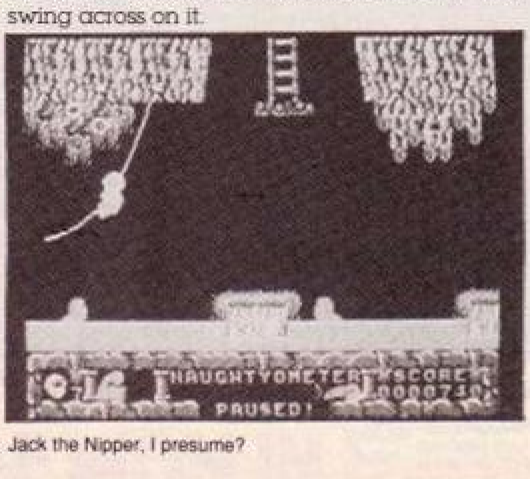
Gremlin, £9.99 cass, £14.99 disk, joystick or keys

After the success of *Jack the Nipper I*, Gremlin have decided to bring out this sequel. *Jack the Nipper II* – in Coconut Capers keeps many of the old features, and replaces much of the scenery, while adding different tasks and increasing the ease of play. I personally found *Jack the Nipper I* difficult to get into.

Jack and his parents, having been gently persuaded to leave the wet and windy shores of Britain in search of a sunnier clime, are flying over the seas to that antipodean sunrise of a continent, Australia. As the pilot announced that they are "flying at present over the jungle" Jack became too impatient and decided to don his parachute and jump. Unfortunately for him, his Dad spotted him and followed him as quickly as his own parachute would allow.

You play the part of Jack, in his mission of initiating the natives in the ways of the naughtiest child in the world. You must of course beware of the ferocious animals which try to guard the jungle that had been their peaceful home for many years before. Luckily, there is a plentiful supply of coconuts lying around, which you can use to kill animals.

As you know, Jack has not many years under his belt, nor inches of leg. This makes running around the jungle a touch difficult, but to go quicker, or to let you navigate a difficult bit of the jungle, you can grab a vine and swing across on it.



Jack the Nipper, I presume?

The Verdict

GRAPHICS 66%
- ☐ Lots of fast moving characters.
- ■ Drab colours.

SONICS 62%
- ☐ Above average effects and nice music.

GRAB FACTOR 71%
- ☐ Easy controls.
- ■ Instructions don't help you get started.

STAYING POWER...... 81%
- ☐ Massive playing area.
- ☐ Difficult task to complete.

AA RATING 74%
- ☐ Better playability than *Jack I*.

SECOND OPINION

I was disappointed that they didn't stick with the same cartoon graphics as the first game. These look like they've been quickly converted from the Spectrum and don't look as good. The gameplay is absorbing, but platform games aren't my cup of coffee (I don't like tea either). All the same it's an adequate sequel. **BW**

GREEN SCREEN VIEW

Playable jungle in green.

There are objects lying around the jungle which will help you in your mission. The coconuts play a big part, but there are also Logs, Shields, honey and Grease.

As games go, I am having difficulty in getting over the fun that this game gives me. I have however seen a lot of different screens, and yet every time I play it, I find another new screen. I would buy this game simply for the enjoyment of searching the jungle but that stems from my love of platform games.

Graphics are boring in terms of colour, but as with the screens, every time I play it, I find a new character or item of scenery. Movement is easy, there is no scrolling and the animation is good. Sound effects are good, and the music is nice as well. **CJB**

FIRST DAY TARGET SCORE

Obtain a lantern.

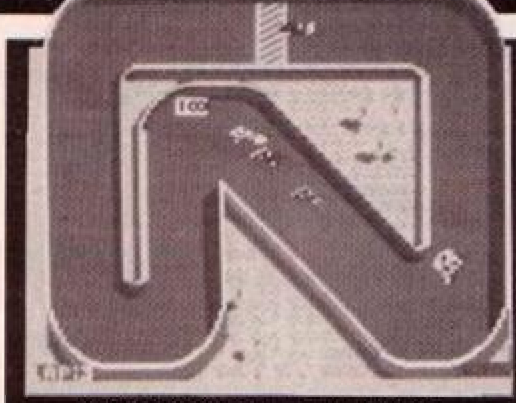
SUPER SPRINT

Electric Dreams, £9.99 cass, £14.99 disk, joystick or keys

Coin-ops strike again. *Supersprint* has finally arrived on the Amstrad with eight gruelling tracks for you to compete on. Two people can play at the same time against two computer car drones or one player can race against three drones.

You first select the number of players and then choose which of the eight tracks you want to race on. To continue to the next track one of the players must beat all the drones, second place counts for nothing.

Some tracks are more difficult than others because of tighter bends, jumps and underpasses where your car goes out of sight. Oil slicks appear too and these make the car spin out of control, as does a tornado. Water slicks slow down your car allowing the computer cars a chance to catch you up. Bonuses appear at random and these can be collected for points.



Gentlemen and ladies: start your engines!

The most useful thing to appear is a spanner and if you collect three of these you can customise the car to give it: super traction, higher top speed, turbo acceleration or increased scoring. No explanation of the features is necessary because they all live up to their names.

Sound is limited to the revving of your engine and even that doesn't sound too good. The graphics are small but colourful and the cars are easy to identify in the four different colours. There are a couple of irritating things, like the poor collision detection which bumps you into walls when you aren't near them, and driving over the spanners often results in you not picking them up.

Supersprint is an addictive game in the arcades and its addictiveness does come across in the conversion, but it is let down by the collision detection. It is better than *Grand Prix Simulator*, but that was a budget game.
GBH

SECOND OPINION

I enjoyed the arcade game, but it wasn't earth shatteringly exciting. I'm afraid this conversion loses some of the playability and therefore some of the enjoyment. The choice of keys is bad and you can't redefine them – one of those niggley but important details. It's still a lot of fun to play, particularly with two people, but I sense an opportunity missed to provide something good. **BW**

GREEN SCREEN VIEW

Slightly harder spotting which car is yours, but playable.

FIRST DAY TARGET SCORE

Complete five tracks

The Verdict

GRAPHICS **68%**
- ☐ Clear, colourful graphics.
- ■ Poor collision detection.

SONICS **23%**
- ■ Brrm, brrm.

GRAB FACTOR **79%**
- ☐ Addictive gameplay.
- ☐ Two people can play at once.

STAYING POWER **67%**
- ☐ Eight tracks to complete.
- ■ Ultimately lacks variety and challenge.

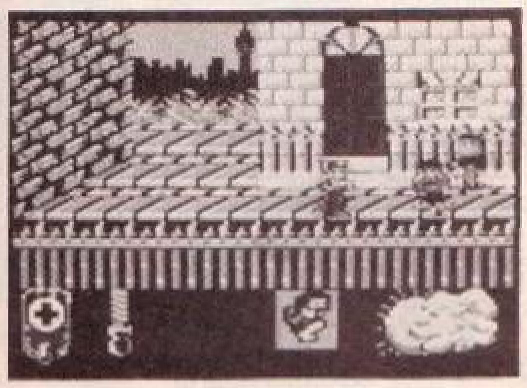
AA RATING **73%**
- ☐ A fun game...
- ■ which could have been excellent with better programming.

WEREWOLVES OF LONDON

Viz Design/Ariolasoft, £9.99 cass, £14.99 disk, joystick with keys or keys

On the flipside of *Werewolves of London* is a music track called the Werewolf Rap – Silver Bullet mix. This tune is designed to get you in the mood for the game, as you wander the streets of London looking for someone to eat.

A wolf to the slaughter.



Cursed by a family of sloanes you now grow excess body hair during the full moon and develop a craving for human flesh. The only way to free yourself of this curse is to kill.

The screen is split into two areas: a status area along the bottom of the screen and a flick screen playing area covers the rest. The status area shows your blood level, objects carried, an icon of you and a sun/moon indicator. Your blood level starts the game full and decreases if you are damaged in any way. If you run out of blood then you die.

The objects carried include things like tickets, torches and files. By selecting your icon the fire button switches from pick up/drop to jump. Jumping is very useful when you are on the rooftops. The wolf form can obviously jump better than the human form. The sun/moon indicator flashes when you are going to change form from man to wolf or back again.

The Verdict

GRAPHICS **79%**
- ☐ Colourful graphics.
- ■ Not well animated.

SONICS **72%**
- ☐ A reasonable tune plays throughout the game.
- ■ Effects are a bit limited.

GRAB FACTOR **70%**
- ☐ Eating people is enjoyable.
- ■ Confusing at first.

STAYING POWER **61%**
- ☐ Removing the curse will take you a long time.
- ■ Lacks addictive action.

AA RATING **66%**
- ■ A bit more game is needed.

London is a big place and sloanes frequent the streets along with policemen. Both are edible when you are a wolf, but the policemen are armed with silver bullets and if you are shot then you start to lose blood. The police will often capture you and then you'll end up in prison for the night. The sewers of London and the underground can be explored, but you'll need a torch.

The graphics are small and colourful, but they are not animated too well. In game sound effects are simple and there is a continuous tune. The tune is the same as the record, Werewolves of London, but it doesn't match up to the vinyl version.

Using objects as you explore the town is quite fun at first and eating people up is a nice change, but the game lacks something to keep you motivated to play it. The idea is fine but there is just not enough game in there. **GBH**

SECOND OPINION

Reminiscent of Bride of Frankenstein from the same team. That too was an enjoyable game as far as it went, but they both lack depth. It needs to move away from the arcade concept and get more adventure action incorporated. I loved the record, but the game isn't as goo **BW**

GREEN SCREEN VIEW

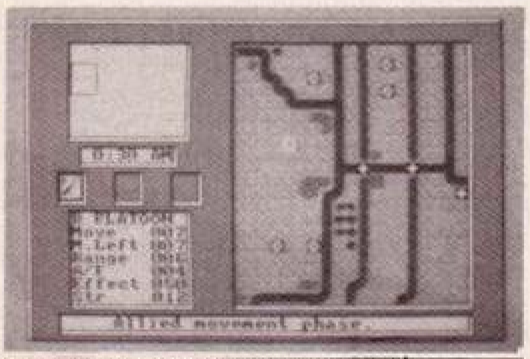
No problems, unless you don't like green blood.

PEGASUS BRIDGE

PSS, £12.95 cass, £17.95 disk, joystick or keys

The British 6th Airborne Division were the first allied troops to land on French soil on the 5th of June 1944, the day before D-Day. Their objective was to capture the eastern flank of the D-Day beach-heads. This was achieved by capturing and holding the two bridges over the Caen canal and river Orne and destroying the five bridges over the river Dives.

The game concentrates on the bridge over the Caen canal, which was later renamed Pegasus Bridge after the emblem of the 6th Airborne Division. You can play either



Not much action but plenty of strategy required.

the allied or axis forces against the computer, or with two players.

The game is played over 36 turns, each lasting 30 minutes of game time. Turns are split into the following phases: reinforcements, movement, support and combat. Play alternates between British and German turns. Troops have a certain movement allowance

SECOND OPINION

I'm usually partial to wargames, and this is a competent enough offering. Fans of the genre will be pleased with PSS's thorough, as ever, approach to the historical research. However, that said it's not likely to win any popularity awards. I believe wargames have more to offer than most computer games, but this isn't a product to convert the doubters. **BW**

GREEN SCREEN VIEW

No difficulties.

and some terrain types cost more movement points than others. The support phase allows you to call for air strikes or naval bombardments on enemy emplacements. Combat allows each unit to attack once within range limitations.

To win the battle you must satisfy your victory conditions which are set out in the large instruction manual accompanying the game. The total victory points for each side is totted up at the end of the 36th turn.

Sound is disappointing with only beeps and pings throughout the game. The graphics are simple. Scrolling of the screen is slow as you move the cursor across the map.

One major problem with the game is the ending of a phase. You have to press the letter E on the keyboard and if you hold down on the key for too long then you will rapidly go through all the phases and waste valuable units. For wargames to grab a larger share of the market they need to have something to grab your attention and this game may be a good representation of a battle, but it will bore people who are not dedicated wargames players. **GBH**

The Verdict

GRAPHICS ... 43%
- ■ Uninspiring use of colour and detail.
- ■ Slow scrolling slows down play.

SONICS ... 16%
- ■ No real use of sound.

GRAB FACTOR ... 58%
- □ Wargamers don't get many games to play, so this will probably go down well.
- ■ Non-wargamers are unlikely to be converted.

STAYING POWER ... 69%
- □ Meeting all of the victory conditions is a tall order.
- ■ There's only a single scenario to play.

AA RATING ... 62%
- ■ Expensive for what it is.

PRO SKI SIMULATOR

Codemasters, £2.99 cass, joystick or keys

Last month we had a water skiing simulation and now you can do your best to break the other leg as you ski down the snow covered slopes of the Alps.

It's brought to you courtesy of the Oliver twins, programmers of games like *Super Robin Hood* and *Grand Prix Simulator*. Two people can compete against each other at the same time or you can compete against the computer.

The Verdict

GRAPHICS ... 68%
- □ Smooth vertical scrolling.
- ■ Small stickmen skiers.

SONICS ... 76%
- □ Digitised speech.
- □ Good title tune.

GRAB FACTOR ... 74%
- □ Great fun once you get into it.
- ■ A little difficult at first.

STAYING POWER ... 65%
- □ Seven increasingly difficult courses to complete.
- ■ Disappearing out of camera shot is annoying.

AA RATING ... 73%
- □ A Great little skiing game.



Mind that tree! Look out for that fence! Where's my bobble hat?

The screen is split into three areas. The top of the screen shows time elapsed during the race. Each race must be done within a time limit, 60 seconds on the first race and the time limit decreases after every race. The right hand side of the screen shows a radar map of the course with markers indicating the position of the two skiers. The rest of the screen shows the playing area which scrolls downwards.

The screen scrolls continuously and if you are too slow in your descent of the mountain then you will disappear out of camera shot. You will then have to find your way to the bottom of the mountain using the radar screen – a nigh impossible task.

There are seven courses of increasing difficulty for you to complete. Each course is made up of six gates and a finishing line. If you fail to pass through each of the gates and the finishing line within the time limit then you will be disqualified and the game ends.

Digitised speech is included in the game and this occurs at the start of each race. A tune plays on the title screen and there are some simple spot effects in the game. Colour is used well although there is not much colour really.

At first this game is very difficult to play, but once you have sorted out how to control the skier properly it gets much easier. The two player option makes it fun to compete against your friends. The most annoying feature is that you often end up being out of camera shot and as a result you give up frustrated. **GBH**

FIRST DAY TARGET SCORE

Complete four courses.

SECOND OPINION

Codemasters have got skilled at producing these "simulator" games. They're playable, challenging, cheap and you're unlikely to feel disappointed having bought one. The trouble from my point of view is that it's not actually doing anything new. I hope that now they are well established that new and original games will start being produced. However, you can't argue with this one – it's good value. **BW**

GREEN SCREEN VIEW

Perfectly playable.

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THUNDERCATS

Elite, £8.95 cass, £14.95 disk, joystick or keys

Thunder Cats is another in the long line of cartoon spin-offs. The cartoons have been criticised as being merely adverts for toys, and now computer games, but that doesn't mean they can't be good ones. Mumm-ra the ever-living and his evil Molemen have entered the Cats Lair and stolen the eye of Thundera. The eye of Thundera is a magic jewel that was given into your keeping. As Lion-o you vow to retrieve the eye from Castle Plun-Dar.

There are two versions of the game, one for 128K machines and one for 64K. The 64K version has eleven levels and the 128K has fourteen. Both versions of the game have digitised backgrounds for the levels. The extra memory on the 128K is used to store digitised pictures for the intro, bonus screens, endgame and the "eye" score table.

The route to Castle Plun-Dar is long and tortuous. Each level is a horizontally scrolling corridor which you have to fight your way along. They don't always run in the same direction though, so be prepared to go left or right when you enter a new level. The scrolling is good, but you won't get much warning when some of the creatures appear.

Each of the levels is occupied by a variety of unpleasant creatures which are out to stop you. These include molemen, giant bats, rhino like creatures, bubbles, fireballs, little men with shields and Mumm-Ra. Collision with any of these causes the loss of one of your six lives. Fortunately you are armed with a sword with which you can despatch your enemies.



Lion-o the hero

Flying hazards bring death from above

These big guys keep coming after you

SECOND OPINION

I wasn't overly impressed to start with, it seemed like just another simple arcade game. Not so. As you start hacking and blasting your way through the levels it reveals all sorts of subtle touches that make it highly playable: many different creatures, rescue levels, bonuses, different weapons and time limits. All combined to make an addictive, enjoyable and extremely tough challenge. **BW**

GREEN SCREEN VIEW

No problems with green screen hacking.





The monsters are impressively animated and large, but not very colourful. The most difficult thing about the creatures is the variety in which they come. There are little monsters which can only be hit by crouching down, big ones which can jump over obstacles in pursuit of you, and flying ones. Combine this with the need to jump obstacles and gaps, and you've got some very tough problems.

On the levels are some objects which, when hit with your sword, break to reveal a bonus object. These can be lives, swords, guns or bonus points. Swords and guns change the weapon that you are currently using. Guns are a ranged weapon and so you don't have to get as close to your enemies, thereby minimising the risk to yourself.

Three of the levels are bonus levels in which you can get a bonus of 25,000 to your score. These are rescue levels in which you must free one of your comrades. Tygra, Panthro and Wilykit are your three friends and they are on levels three, eight and thirteen respectively. On these levels you only have one chance and being killed exits you from the level with no bonus. Being killed on these levels does not reduce the lives counter.

Levels 4-7 are called the Gardens of Elementals and are occupied by creatures attuned to the levels. The garden of fire is filled with fireballs, the garden of water has bubbles, the garden of air has bats and eyes and the garden of the earth has Mumm-Ra as well as the molemen. The garden of fire also has a flying bike which you can use by jumping into it.

On some levels there are sections of the floor that give way and falling through them loses you another life – good platform game ideas never die. Other levels have holes in the floor which also kill you if you fall through them.

The digitised pictures were originally sourced from a 128K Spectrum and then passed over to the Amstrad. They're good, but I think that if they'd been sourced on the Amstrad then the quality would have been better. The graphics in the game are large and well animated. These too appear to have begun life on a Spectrum and transferred across, as a result each character is only in two colours. A good musical soundtrack plays, but only on the inter-level screens and title screen, there is no tune playing in the game itself. Sound effects are good and occur frequently enough that there is never silence.

Fourteen levels will keep you occupied for a long time and, since some of these levels are very difficult, you may not be seeing the fourteenth level for a long time. I've seen the cartoon and that really is for youngsters, the game is tougher meat and will appeal to all arcade gameplayers. **GBH**

FIRST DAY TARGET SCORE
30,000

The Verdict

GRAPHICS **81%**
- ☐ Digitised pictures are a nice touch.
- ☐ Large well animated characters.

SONICS **67%**
- ☐ Great title tunes.

GRAB FACTOR **87%**
- ☐ Great variety of creatures to battle.
- ■ Gets tough very quickly.

STAYING POWER **92%**
- ☐ Fourteen levels of tough action.
- ☐ Once you've grasped the timing and tactics it's impossible to stop playing.

AA RATING **90%**
- ☐ A first rate hack-em-up.





FREDDY HARDEST

Imagine, £8.95 cass, £14.95 disk, joystick or keys

After a bit of a party Freddy is a little tipsy due to drinking excessively. As a result he bumps into a meteorite and crash lands on the surface of a moon of the planet of Ternat – let that be a lesson to drink drivers everywhere. Ternat is the site of the alien base Kaldar and the aliens don't really like Freddy being there. As a result of the crash his ship is totally written off, so he sets off to find one to steal.

The first part involves Freddy's attempt to reach the alien base. The surface of the moon is cratered and occupied by a variety of alien life forms, who could do with a snack about now – and guess who's coming to dinner?. You can attack by two methods: a laser pistol and a flying kick.

The aliens are Avoidois, Antoids, Watching robots, Koptos and Snakkers. Avoidois are small and you can not kick low enough to hit them, so a bolt from the laser is the best thing to do. Watching robots fly across the surface and these have to be disabled with a flying kick. The other three can be despatched by a flying kick or a shot. If any alien touches you then one of your five lives is lost.

Bubbling craters appear in the landscape and it's not advisable to try to go swimming in them. Large tube-like craters spit out globules of liquid which form into an alien on hitting the surface of the planet.



Freddy ducks and fires at the approaching aliens

There are two parts to the game and these are loaded separately. An access code is needed to enter part two and this is obtained on completing level one.

SECOND OPINION

Dinamic's previous efforts have been graphically excellent, but with gameplay problems. This time they've got things right, although I suspect it's more a case of the guys at Ocean/Imagine telling them exactly how to tweak the difficulty level. The graphics, animation and scrolling are once more superb. Part one is a very addictive shoot-em-up and part two provides plenty of exploratory challenge. **BW**

GREEN SCREEN VIEW

Both parts are clear and playable.

Occasionally large gaps appear in the surface which you must leap across. The longer that you keep the joystick pushed up, the further you can jump. Eventually you'll reach the entrance to the alien base and all you have to do is jump into it.

TRANTOR

GO/US Gold, £9.99 cass, £14.99 disk, joystick or keys

The People of Zybor have kept order in the solar system for thousands of years. Their control is slipping due to a new power in the world of Nebulithone. Trantor and a group of outlaw mercenaries set out to reconnoitre the planet. Trantor returns to the ship only to find it destroyed and the mercenaries dead. You are Trantor – the last storm trooper.

Before the game itself loads there are three loading screens to go through. The second shows Trantor's space ship landing on the planet and Trantor stepping out of the ship and into the complex. The first and third loading screens are nice but merely waste time when you could be blasting away. There is also some digitised speech after the first loading screen and this adds a nice touch.

When you eventually start to play the game you are presented with a large well animated figure standing in a corridor. You're armed with a flame thrower and can stride around the complex killing everything in sight.

This is all simple enough except that the complex is littered with alien life forms who all deplete your energy level. If you run out of energy then you expire and the game ends. Watch out for the large blue monster on the fourth level because if it touches you then you die instantly. Fortunately the blue monster and every other creature in the complex can be shot with a quick squeeze on the trigger of your flame thrower.

Flame throwers need fuel and this can be found in large cylinders on each level. There are also lockers on the levels and these contain one of several different objects. These include hamburgers to replenish your energy, fuel to replenish your flame thrower and a pass key to allow access to the security terminal.

You can travel between the levels by standing on lifts and pressing down or up.



Who is that big blue guy?

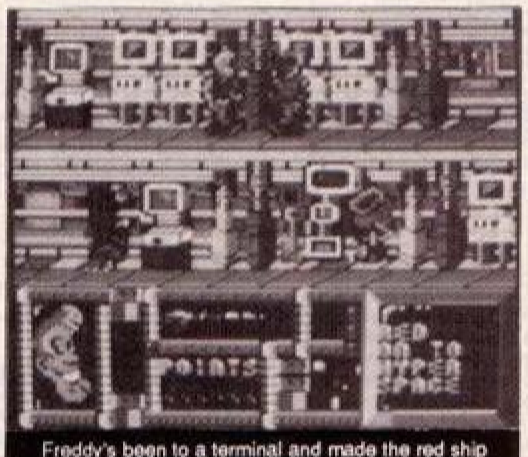
Once inside the alien base you have several tasks to complete. There are a choice of four space ships which you can "borrow", and the captain's code is needed to use the ships. You only need the code to one ship. Nuclear fuel cells need to be collected and put in the ship to fuel it. The instructions for the jump to hyperspace also need to be found.

In the lower part of the screen is your status panel showing: lives, nuclear fuel cells, messages and score. The playing area shows two levels at a time, the one you are on and the one above or below you. The different levels are moved between by use of fireman's poles and lifts.

The alien base is occupied by three types of creature: Micro sounders, Gabarda robots and Inhabitants. Micro sounders fly around the top of the screen and can only be destroyed by a flying kick. Gabarda robots hover around on jet-packs and these can be shot or kicked to death. The Inhabitants are immune to laser fire and so you must use your martial arts skills on them. They too can do martial arts and so there is simple combat phase.

Sixteen computer terminals are spread around the base and these hold the captain's codes and hyperspace instructions. Once you have all of the relevant information for one of the ships, all you have to do is get to the hangar and make your escape.

The graphics of Freddy and the aliens are all well animated and colourful, and the scenery on part one scrolls smoothly. The



Freddy's been to a terminal and made the red ship ready for the hyperspace jump

second game is a little too colourful with the scenery distracting you from the game. The sound effects are explosively rewarding and there is a reasonable title tune.

The two parts of the game are really two totally different games. The first part is a shoot-em-up with you killing everything that moves and the second is a collect-the-set game. Both parts of the game are good and you're effectively getting two games for the price of one **GBH**

FIRST DAY TARGET SCORE
Complete part one

The Verdict

GRAPHICS **84%**
- ☐ Colourful and well animated characters.
- ■ Second game is a little too garish.

SONICS **76%**
- ☐ Explosions are loud and clear.

GRAB FACTOR **89%**
- ☐ Zapping and kicking your way around is fun.
- ■ First part can be frustrating.

STAYING POWER **86%**
- ☐ Second part will keep you occupied longer.

AA RATING **88%**
- ■ Once completed you may not play it again
- ☐ Two good games for the price of one.

There is one down lift and one up lift on all but the top and bottom levels of the complex.

To complete the game you must find the secret access code to the security terminal. This is done by looking in each of the eight computer terminals which each hold one of eight letters. These letters make up an anagram of a computer related word. You also need the pass key to access the security terminal and this is found in one of the lockers. The anagram must be fed into the security terminal and you then proceed to the beam area. From here you can beam off the planet with the knowledge of a job well done.

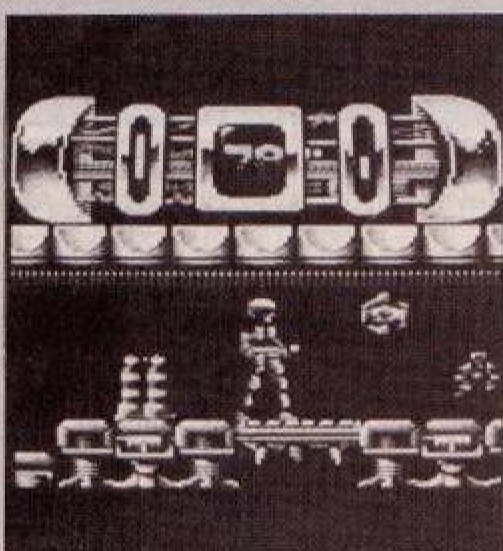
SECOND OPINION

This is a game with great initial appeal, but one that you may tire of quite quickly. The delightful animation, explosions, aliens and scrolling combined with fry-em-up action are addictive. The drawback is that the puzzle element isn't that strong, so that the game can be solved within a few days play and won't hold much interest after that. **BW**

GREEN SCREEN VIEW

No problems at all.

Trantor is big and stomps around the complex in an impressive manner. The scrolling of the screen is smooth and fast. The title tune is good enough and the in-game effects are loud and effective.



Trantor stands on a lift near a fuel cylinder

Wandering around the complex cremating everything in sight is great fun, but after a while you have to settle down to completing the game and this may be when frustration sets in. Finding hamburgers is not easy and you often die within sight of a locker which could just contain food. If you want a game that has got real zap-appeal then this could be the game for you **GBH**

FIRST DAY TARGET SCORE
50%

The Verdict

GRAPHICS **86%**
- ☐ Large well animated graphics.
- ☐ Great use of colour.

SONICS **76%**
- ☐ Spot effects really sound good.
- ☐ Digitised speech on loading screen.

GRAB FACTOR **86%**
- ☐ Great fun zapping everything with your flame thrower.
- ■ Okay so there's not much thought needed.

STAYING POWER **74%**
- ☐ Beaming off the planet is a difficult task.
- ■ Once you've done it you may not bother again.

AA RATING **80%**
- ■ Plenty of zap to keep you occupied.

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PASSENGERS ON THE WIND II

Infogrames, £12.95 cass, £14.95 disk, joystick or keys

Infogrames have released a sequel to the innovative game based on a comic book, with the imaginative title of *Passengers on the Wind 2*.

Passengers on the Wind was set on the eve of the French revolution and centered around Isa, Hoel, Mary and John trying to escape France and head for Africa. Disaster has struck the adventurers and each of them has their own problems. John has gone completely round the twist, Hoel is ill and could die and Isa and Mary are exposed to the plans of the diabolical duo of Viaroux and Montaguere.

The game is played in a series of episodes. Each episode begins with you trying to find the place on the screen where the characters are. In the first episode the bridge is the place to fire on and then the face of Isa will appear at the bottom of the screen. Any other characters present can be cycled through.

Occasionally the text in the window will go green and this is an indication that you must make a decision. Depending on your decisions you will affect how people react throughout the game. At the end of the first five episodes the wise man asks you a riddle. To solve a riddle you select the character that you think knows the answer. These riddles are to keep you on track for the end of the story.

Sometimes if you move the cursor into the graphics screen you can act in this area and certain actions can be taken or objects used. The best example is pulling the trigger on a gun.

Different tunes play in each episode and all of these sound good. The graphics of the characters are clear and colourful. The scenery itself is detailed, including the windows that pop up during the episodes. Colour is used extremely well throughout the whole game.

One thing that really irritated me in the game is the cursor response which is incredibly slow. I felt more like a spectator than a player with this game, as the characters appeared to just want me to press the fire button at the appropriate time. There doesn't appear to be any significant improvement in *Passengers 2*, so unless you were a fan of the original you are unlikely to enjoy the sequel. **GBH**

The Verdict

GRAPHICS 84%
- □ Good use of colour and detail.
- □ Excellent window system for events.

SONICS 76%
- □ Varied tunes play throughout the game.
- ■ No spot effects.

GRAB FACTOR 65%
- □ Fans of the original will love it...
- ■ but there is no real improvement in the format.

STAYING POWER...... 74%
- □ Seven episodes to complete.
- ■ You seem to have little control over the actions.

AA RATING 68%
- ■ The original was innovative, but this fails to capitalise.

SECOND OPINION

I recall my words from issue 22 about the original game. "the shape of the future for computer games." I also remember writing "this new game format still needs work", unfortunately I don't think they've improved upon it enough. There is more interaction but the storyline still isn't clear enough for the player. I still think this is the shape of the future, but it may only reach its potential on the 16 bit machines. A good follow-up which will delight fans of the first game. **BW**

GREEN SCREEN VIEW

Perfectly playable, but the pictures don't look as good of course.



PRESIDENT

Addictive, £2.99 cass, £7.99 disk, joystick or keys

Can you survive in the political world as president of a small country? This is another strategy game from Addictive who brought us *Football Manager* a long time ago.

The game opens with choice of which sector to explore. This sector is your country and has a random distribution of lakes, as well as your first oil well. When you see a sector to your liking then you continue to the next part which gives you an option to save the game.

You can now import a tank into the country to help in defense. The option to see an oil survey map comes up and with this you can decide which are the best places to build an oil well. Four options appear and these are survey, build, destroy and exit.

Build allows you to build one of the following: an oil rig, anti- aircraft gun, storage tank, crossroads (not the motel), truck on road, straight road, and the three crops. Oil rigs, storage tanks and trucks are used together to build up a supply of oil which gives you some income. The anti-aircraft guns protect you from air strikes. The road sections are needed to move your trucks along to the storage tanks and the crops are needed to feed your people.

The population have to be fed otherwise you lose popularity and the chances of diseases increase. Your popularity is also effected by tank battles, balance of payments and by whether or not oil contracts are fulfilled.

Your objective is survive until the next election which occurs every two years. When an election occurs a running total of the number of votes you receive and those of the other two parties are displayed. If you win the election then you can continue for another two years, but if you lose the game ends.

Graphics are very simple, but in this type of game you do not really need spectacular graphics. The sound effects are pretty useless and add nothing to the game.

The game play is repetitive, but it does provide a tough challenge to survive the two year periods. A bit more thought could have made this a really good game, but it does not quite have what it takes. **GBH**

SECOND OPINION

It's one of the oldest ideas for a computer game there is, but I've always enjoyed economy simulations. This one isn't bad but I found it a little too limiting in the options it gave you. The odds always seem to be stacked heavily against you, which doesn't help. Once again a game that could have been better with just a bit more work on the gameplay. **BW**

GREEN SCREEN VIEW

Clear and playable.

The Verdict

GRAPHICS 42%
- □ Everything is clearly defined.
- ■ Poor use of colour.

SONICS 22%
- ■ Boom is all you get.

GRAB FACTOR 58%
- □ Easy to start with....
- ■ but frustration sets in as things build up against you.

STAYING POWER...... 76%
- □ Once you begin to get powerful things get a little easier.
- ■ Waiting for election results to come in takes far too long.

AA RATING 74%
- □ At a budget price it's well worth a look.

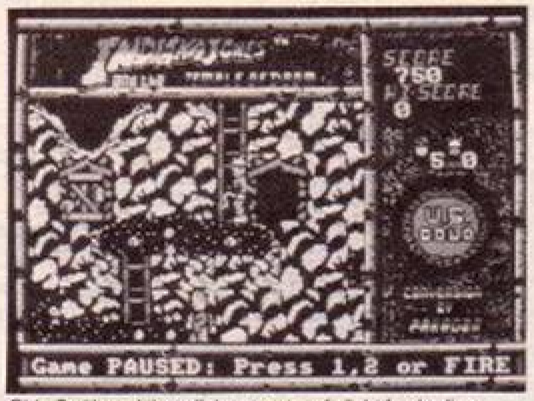
FIRST DAY TARGET SCORE

Survive two years.

INDIANA JONES AND THE TEMPLE OF DOOM

US Gold, £9.99 cass, £14.99 disk, joystick or keys

I don't know about you, but I felt that the film lacked in substance and storyline and realism and... enough of that. I also felt that the game at the arcades did, as well. Did they copy it straight onto the Amstrad, or did they have to change something?



Ohio Smith and the religious centre of slight foreboding

You play Indie in his quest to rescue the children trapped in The Temple Of Doooom. Of course whilst you are there, being somewhat of a hunter of rare artifacts, you must also rescue the Stones of Ankara.

Unlike the arcade version, you cannot choose from three skill levels. Apart from that the rest is true to life. The Thuggee guards still persist in following you everywhere and magically killing you by walking into you. The Emperor still pops up every now and again to welcome you to his Temple of Doom by throwing fireballs at you.

You still have your whip by your side which you use to break the locks on the cages which hold the children, paralyse the Thuggee guards, stop the fireballs, make the Emperor disappear and to swing across gaps by lashing it round conveniently placed pit-props embedded into the stonework.

The railway is your only means of escape and is as difficult as the arcade one, with breaks in the line and the constantly ambushing Thuggee guards.

Whatever I said in the first paragraph, this is still a good game to get. The movement is not as slow as some of the other US Gold conversions. The graphics are as varied as the real game, and the sound is just as good – except for the lack of speech, but then what do you want – miracles! Definitely one for my collection. **CJB**

The Verdict

GRAPHICS 69%
- □ Lots of well drawn characters.
- ■ Lacking in good use of colour.

SONICS 66%
- □ Brilliant effects.

GRAB FACTOR 71%
- □ Straight into the action as the guards surround you.
- □ Quick initial success by using your whip.

STAYING POWER 74%
- □ Two different parts to the game.
- ■ Gets repetitive and frustrating.

AA RATING 72%
- ■ Definitely a game you'll want to come back to.

SECOND OPINION

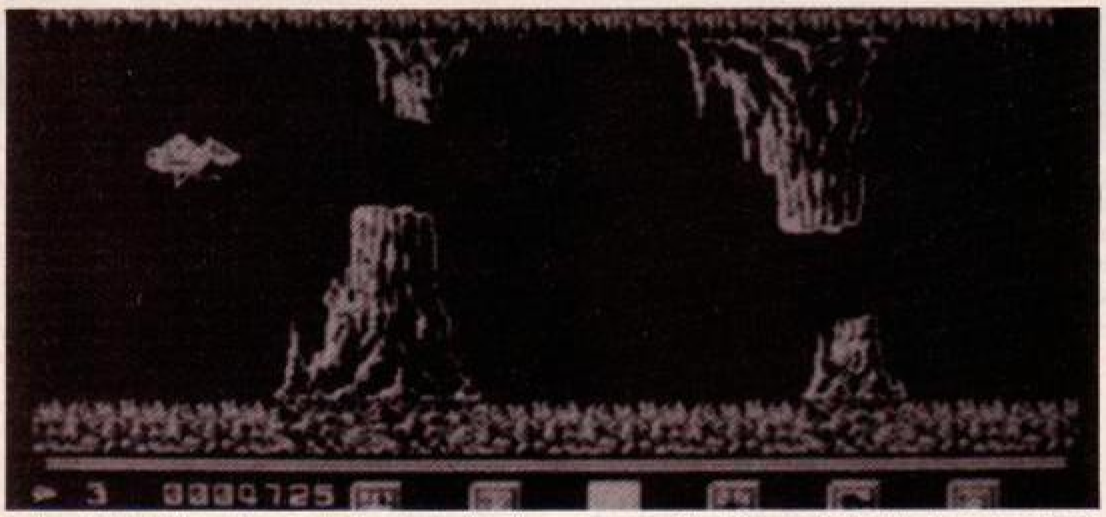
I can't say I share Chris's enthusiasm for Indy and friends. It's a competent multi-load game but doesn't seem to have anything particularly special to recommend it. Doubtless it will pass some hours pleasantly for fans of the film, but it isn't one for my collection. **BW**

GREEN SCREEN VIEW

No problems.

TRANSMUTER

Codemasters, £1.99 cass, joystick or keys



In the distant future the sun is a red giant and man had to burrow deep into the heart of the planets core in order to survive. Deeper and deeper man delved and on the levels above machines were left to guard the tunnels. A huge ship was created and launched into space with what was left of the human race on board. Time passed and now you return to spring the trap, which your ancestors left behind to make it safe for unwary travellers.

It's is a *Nemesis* variant with a horizontally scrolling landscape, along which you must fly your spaceship. Contact with any of the static or moving hazards loses a life and you have to return to the start of the level. If you complete a level a bonus screen appears on which you can boost your score. The next level then begins and things get steadily more difficult.

There is a slight variation with this game in that there is a row of icons across the bottom of the screen. These are speed, double, bomb, laser, add on and shield. To move through the icons you must shoot as many aliens as possible. To select the icons you simply press the space bar.

The graphics are some of the worst that I have seen on the Amstrad. The scrolling is jerky and use of colour is not brilliant. There are some nice tunes but the in game effects are lousy.

This is not up to the usual standards of Codemasters. I hope their next is better. **GBH**

SECOND OPINION

Call this scrolling? It's like watching a learner driver letting the clutch out – stop, go, stop, go. The gameplay is passable, except for annoying features like returning to the start when you die. This one deserves some sort of accolade for the scrolling, so a Grave it has to be. **BW**

GREEN SCREEN VIEW

A clear view of everything.

FIRST DAY TARGET SCORE

5,000 points.

The Verdict

GRAPHICS 28%
- ■ The jerkiest scrolling we've ever seen.
- ■ Poor use of colour.

SONICS 35%
- □ The tunes are tolerable.
- ■ Effects are terrible.

GRAB FACTOR 15%
- ■ Very old game format.
- ■ Badly executed in all departments.

STAYING POWER 21%
- □ Difficult game to complete.
- ■ Far too many frustrations in the game.

AA RATING 17%
- ■ Bad game, worse scrolling.

CHEAT MODE

Dick'n'Gary check out your tips, pokes and game-busting ploys. The best ones win an entire issue's *Raves* and the *Mastergame*. Send your latest gem to: Cheat Mode, *Amstrad Action*, 4 Queen Street, Bath BA1 1EJ



POKE METHODS FOR TAPE

Here is how to input the majority of Cheat Mode tape pokes. The instructions for each poke tell you which of the two different methods to use. If you have a 664 or 6128, first type |tape.

METHOD 1

Rewind the game tape to the beginning. Now type in the poke listing. Then type RUN and press the Enter key. (Don't use the key marked CTRL or Control; that would stop the poke from working.) Press the Play key on the cassette deck, then any key on the main keyboard - spacebar will do nicely. The tape should now start to play through in the normal way.

METHOD 2

For this method you have to skip the first bit of the game program. To do that, start by rewinding the game tape to the beginning. Now type in the listing. Then type CAT and press Enter. Start the tape by pressing Play and then any key. Then watch the screen.

Soon you'll get the message Found *something* Block 1. It doesn't matter what the *something* actually is; this will vary from one game to another. If the Cheat Mode instructions just tell you to skip the first block, you should stop the tape here.

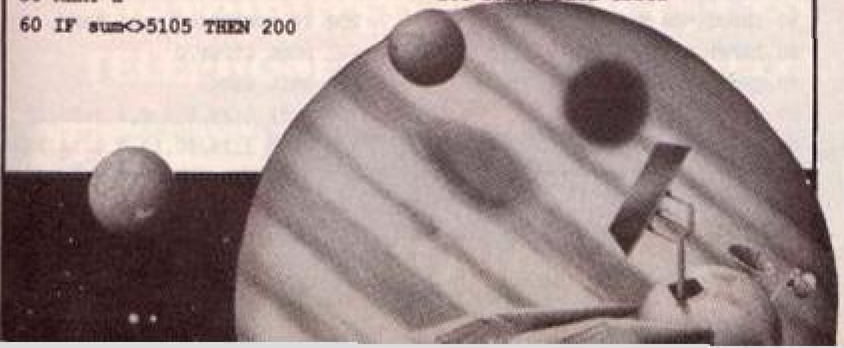
If the instructions tell you to skip several things, stop the tape when the Found message comes up for the last thing you're trying to skip.

Once you've stopped the tape, press Escape, type RUN and press Enter. Now press Play on the tapedeck and any key on the keyboard to start the tape running.

Mission Jupiter

Another poke by **Peter Wiseman**. This time *Mission Jupiter* gets the treatment and you have 255 lives, infinite fuel and ammo and rapid fire. This is also a Method 1 poke.

```
1 ' Mission Jupiter - tape
2 ' by Peter Wiseman
3 ' Amstrad Action December 87
10 MODE 1:MEMORY 5999:sum=0
20 FOR a=6000 TO 6055
30 READ a$:c=VAL("&"+a$)
40 POKE a,c:sum=sum+c
50 NEXT a
60 IF sum<>5105 THEN 200
70 POKE 6033,255:' no of lives
80 POKE 6038,0:' infinite fuel
90 POKE 6043,0:' infinite ammo
100 POKE 6048,&18:' rapid fire
110 LOAD"mission jupiter"
120 CALL 6000
130 DATA 3a,37,bd,32,a8,17,2a,38
140 DATA bd,22,a9,17,3e,c3,21,90
150 DATA 17,32,37,bd,22,38,bd,21
160 DATA ff,ab,11,40,00,c3,43,3a
170 DATA 3e,04,32,f7,6a,3e,3d,32
180 DATA 44,5f,3e,35,32,54,61,3e
190 DATA 28,32,f8,60,21,dc,1e,e5
200 PRINT"Data error"
```

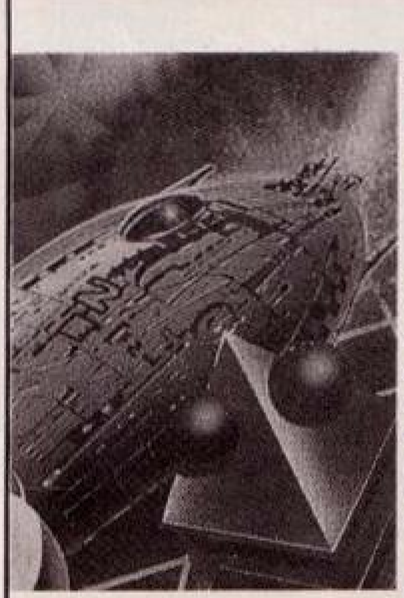


RENEGADE

Does the name **Phil Howard** ring a bell? *Renegade* gets infinite lives this time. (Apparently there are some strange copies of *Renegade* out there where the victims have blue blood.) It is a Method 1 poke.

```
1 ' Renegade - tape
2 ' by Phil Howard
3 ' Amstrad Action December 87
10 DATA 21,f4,37,36,c3,23
20 DATA 36,16,23,36,be,21
30 DATA 40,00,e5,21,00,b9
40 DATA e5,c3,c9,37,e5,21
50 DATA 6e,00,36,dc,23,36
60 DATA 15,23,36,89,e1,f1
70 DATA f3,c9,21,2e,b9,36
80 DATA ed,23,36,4b,23,36
90 DATA 02,21,2e,b9,11,2e
100 DATA 79,01,26,00,ed,b0
110 DATA 3e,79,32,47,79,32
120 DATA 4b,79,32,53,79,3e
130 DATA c9,32,54,79,cd,2e
140 DATA 79,dd,21,d9,bb,11
150 DATA dd,00,cd,67,bb,21
160 DATA 62,be,22,b4,bc,c3
170 DATA 03,bc,3e,a7,32,48
180 DATA 0a,c3,40,00
190 MEMORY &3000:y=0
200 FOR x=&BE00 TO &BE69
210 READ a$:a=VAL("&"+a$)
220 POKE x,a:y=y+a:NEXT
230 IF y<>&29EC THEN 260
240 LOAD"renegade"
250 CALL &BE00
260 PRINT"Data Error !"
```

Motos



Stephen Basford of Crewe has hacked into *Motos* to give you extra lives or infinite lives. It is a Method 1 poke.

```
1 ' Motos - tape
2 ' By S Basford
3 ' Amstrad Action December 87
10 MODE 1
20 FOR c=&BE80 TO &BEA2
30 READ h$:POKE c,VAL("&"+h$)
40 NEXT c
50 INPUT "No of lives:";l
60 INPUT "Inf. Lives [Y/N]";l$
70 POKE &BE97,l
80 IF LOWER$(l$)="n" THEN POKE
   &BE9C,61
90 CLS:PRINT"Loading..."
```



Strike Force Cobra

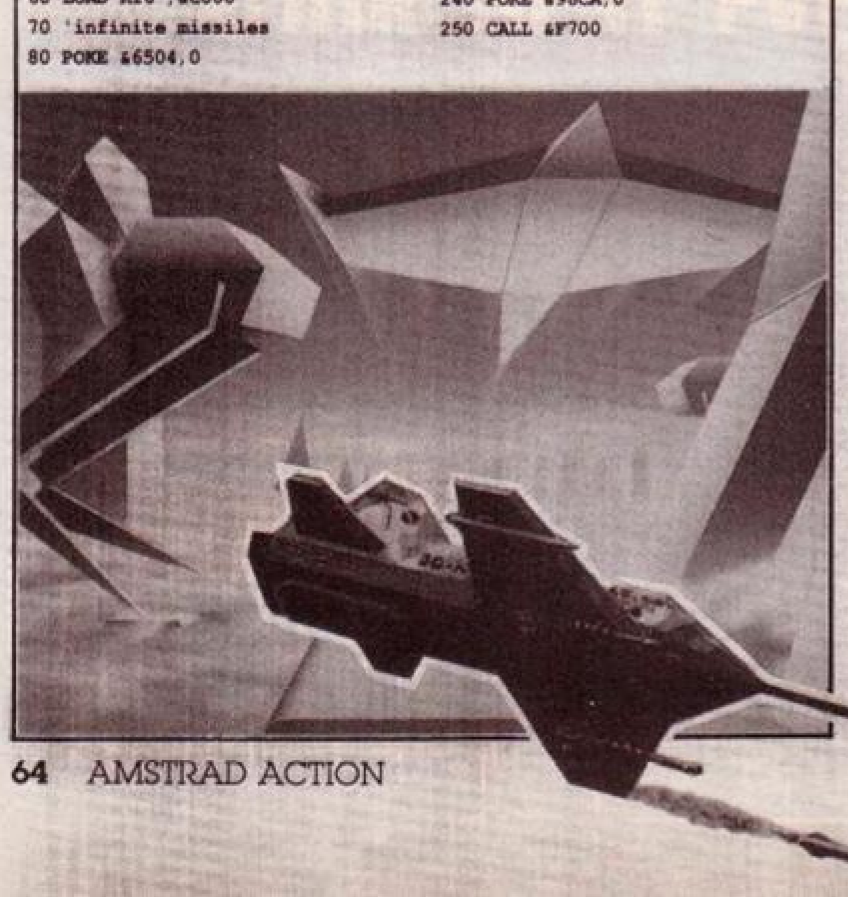
Paul Robson from Middlesborough has sent in this poke for the tape version of *Strike Force Cobra* which gives you immortality and infinite time to complete the mission. Use Method 1.

```
1 ' Strike Force Cobra - tape
2 ' by Paul Robson
3 ' Amstrad Action December 87
10 MEMORY &3FFF
20 LOAD"!",&4000
30 FOR f=&BE00 TO &BE3A
40 READ a$:a=VAL("&"+a$)
50 POKE f,a:t=t+a
60 NEXT f
70 IF t=4298 THEN CALL &BE00
80 PRINT"Data error"
90 DATA 3e,c9,32,50,40,21,00,40
100 DATA 11,00,02,01,00,01,ed,b0
110 DATA cd,00,02,3e,21,32,50,02
120 DATA 21,01,03,11,01,02,1a,ae
130 DATA 2d,ae,2c,77,1c,2c,20,f6
140 DATA 2e,01,5d,24,7c,fe,a9,20
150 DATA ed,af,32,4f,69,32,1c,6a
160 DATA c3,69,02
```

STARGLIDER

John Shinnick from Mitchelstown has sent in this poke for the disk version of *Starglider*. Insert the *Starglider* disk in the drive, delete any features that you don't want and then RUN the program.

```
1 ' Star Glider - disk
2 ' by John Shinnick
3 ' Amstrad Action December 87
10 MODE 1:BORDER 0:INK 0,26
20 INK 1,0:INK 2,6:INK 3,2
30 LOAD"loadpic.scr",&C000
40 MEMORY &1FFF
50 LOAD"K32",&2000
60 LOAD"K16",&C000
70 'infinite missiles
80 POKE &6504,0
90 'infinite laser fire
100 POKE &6363,&C3:POKE &6364,&71
110 'Infinite plasma drive
120 POKE &6309,&C3:POKE &630A,&17
130 'infinite shield
140 POKE &6336,&C3:POKE &6337,&44
150 'rear view scanner
160 POKE &F60E,1
170 'inductive energy pod
180 POKE &F60F,1:POKE &190F,&18
190 'proton missiles
200 POKE &F610,1:POKE &64F3,&18
210 POKE &64F4,7
220 'indestructibility
230 POKE &98C8,0:POKE &98C9,0
240 POKE &98CA,0
250 CALL &F700
```



PROHIBITION



A three-man team has produced a poke - which provides as many lives as you want - for the Infogrames fast scrolling, shoot-em-up. **Gavin Forward** unearthed the lives location for the 6128 side of the disk, GBH did the same for the 464/664 version and RpM wrote the loader.

The poke asks you for the number of lives you want. This should be between zero and 128. Insert the correct version of *Prohibition* into your machine. Loading will take place automatically.

```
1 ' Prohibition - disk
2 ' by Gavin Forward, GBH & RpM
3 ' Amstrad Action December 87
10 DATA DD,7E,00,32,83,90,2A0
20 DATA 2A,42,BE,11,14,00,14F
30 DATA 19,36,03,0E,07,CD,134
40 DATA 0F,B9,11,00,09,21,103
50 DATA 00,40,0E,92,CD,66,213
60 DATA C6,3A,00,40,FE,3D,27B
70 DATA 20,2F,3A,83,90,32,1CE
80 DATA FE,40,CD,4E,C6,79,398
90 DATA FE,93,20,2E,E5,2A,2EE
100 DATA 42,BE,11,14,00,19,13E
110 DATA 36,02,E1,11,00,01,12B
120 DATA 0E,46,CD,66,C6,D5,322
130 DATA 11,60,40,CD,76,90,284
140 DATA D1,CD,4E,C6,C3,B2,427
150 DATA C1,0E,93,CD,66,C6,35B
160 DATA 3A,83,90,32,94,42,255
170 DATA 18,CA,16,0B,0E,91,1A2
180 DATA CD,66,C6,D5,11,0C,2EB
190 DATA 40,CD,76,90,D1,CD,3B1
200 DATA 4E,C6,18,DC,E5,C5,3B2
210 DATA 21,84,90,01,73,00,1A9
220 DATA ED,B0,C1,E1,C9,00,408
230 DATA 20,20,20,20,20,20,0C0
240 DATA 54,48,41,4E,4B,53,1C9
250 DATA 20,54,4F,20,47,41,16B
260 DATA 56,49,4E,20,46,4F,1A2
270 DATA 52,57,41,52,44,20,1A0
280 DATA 46,4F,52,20,46,49,196
290 DATA 4E,44,49,4E,47,20,190
300 DATA 54,48,45,20,36,31,168
310 DATA 32,38,20,50,4F,4B,174
320 DATA 45,2C,20,47,42,48,162
330 DATA 20,46,4F,52,20,46,16D
340 DATA 49,4E,44,49,4E,47,1B9
350 DATA 20,34,36,34,2F,36,123
360 DATA 36,34,20,50,4F,4B,174
370 DATA 45,20,41,4E,44,20,158
380 DATA 52,70,4D,20,46,4F,1C4
390 DATA 52,20,54,48,45,20,173
400 DATA 43,4F,44,49,4E,47,1B4
410 DATA 20,20,20,20,20,20,0C0
420 n=6:a=&9000:L=10:WHILE L<420:
    GOSUB 430:WEND:GOTO 470
430 cs=0:FOR x=1 TO n:READ v$:
    v=VAL("&"+v$):POKE a,v
440 cs=cs+v:a=a+1:NEXT:READ c$:
    c=VAL("&"+c$)
450 IF c<>cs THEN PRINT"DATA
    ERROR IN LINE",L:END
460 L=L+10:RETURN
470 INPUT"Lives (0-128) ",lv
480 PRINT"Insert Prohibition"
490 PRINT"Press a key..."
500 CALL &BB18:CALL &9000,lv
```

Space Harrier

Colin Hinks from Birmingham has sent in this poke for *Space Harrier* which gives you infinite lives, invulnerability, no trees, pacifist aliens and rapid firing. It is a Method 1 poke.

```
1 ' Space Harrier - tape
2 ' by Colin Hinks
3 ' Amstrad Action December 87
10 MEMORY &8C9F
20 CLS:MODE 1
30 INPUT "Infinite Lives ?",a$
40 INPUT "Invulnerability ?",b$
50 INPUT "No Trees ?",c$
60 INPUT "Aliens don't fire ?",d$
70 INPUT "Rapid firing ?",e$
80 MODE 0:FOR x=0 TO 15
90 READ y:INK x,y
100 BORDER 0:NEXT
110 LOAD"screen",&C000
120 OPENOUT"d"
130 MEMORY &3B5
140 CLOSEOUT
150 LOAD"!block",&3B6
160 IF LOWER$(a$)="y" THEN
    POKE &D74,0
170 IF LOWER$(b$)="y" THEN
    POKE &D33,&C9
180 IF LOWER$(c$)="y" THEN
    POKE &F64,&C9
190 IF LOWER$(d$)="y" THEN
    POKE &10FC,&C9
200 IF LOWER$(e$)="y" THEN
    POKE &128F,0
210 CALL &3B6
220 DATA 0,26,6,0,0,9,2,25,15
230 DATA 3,16,10,13,2,1,14,20
```


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We constantly get requests for old pokes, which we obviously can't deal with individually. So from now on we're going to reprint a few of the older pokes every month for anyone who missed them. If there's a poke you'd like reprinted (we DON'T do new ones to order) then let us know.



Spindizzy

In issue 9 we printed a poke by **Tim Gilbert** of Whitby which gives you infinite time to complete *Spindizzy*. It is a Method 1 poke.

```
1 ' Spindizzy - tape
2 ' by Tim Gilbert
3 ' Amstrad Action December 87
10 MODE 1
20 FOR T=49152 TO 49170
30 READ A$:POKE T,VAL("&"+A$)
40 NEXT T
50 CALL 49152
60 DATA 21,40,00,11,C0,B0,3E,6A
70 DATA CD,A1,BC,3E,C9,32,5E,A8
80 DATA C3,00,B0
```

Boulderdash

Also in issue 9 a poke *Boulderdash* was printed that gives you infinite lives and allows you to choose any of caves A to M on levels 1,2 and 3. Here is the poke by **Kev Bovis** of RAF Wildenrath again. It's a Method 1 poke.

```
1 ' Boulderdash - tape
2 ' by Kev Bovis
3 ' Amstrad Action December 87
10 MODE 1
20 MEMORY &7FFF
30 FOR F=&9000 TO &901E
40 READ A$
50 POKE F,VAL("&"+A$)
60 NEXT F
70 PRINT"INSERT TAPE AND PRESS
PLAY"
80 CALL &9000
90 DATA 21,00,02,11,25,70,3E,87
100 DATA CD,A1,BC,AF,32,80,1B,32
110 DATA 81,1B,32,82,1B,3C,32,54
120 DATA 19,32,74,19,C3,52,1F
```

Get Dexter

Phil Howard from Mapperley was hacking into *Get Dexter* back in issue 12 and his poke gives you infinite energy. It uses Method 1.

```
1 ' Get Dexter - tape
2 ' by Phil Howard
3 ' Amstrad Action December 87
10 DATA 21,22,b2,06,c3,e5,c5,21
20 DATA 97,c2,e5,c5,21,5e,02,06
30 DATA cf,e5,c5,21,ff,bb,06,08
40 DATA e5,c5,21,55,7b,3e,04,11
50 DATA 05,7c,c1,fd,e1,f5,cd,13
60 DATA 79,38,fb,f1,3d,20,f0,21
70 DATA 5e,7b,36,fa,21,4e,40,11
80 DATA fb,7b,01,13,00,ed,b0,f3
90 DATA 21,55,7b,11,31,b9,01,c0
100 DATA 00,ed,b0,c3,31,b9,21,16
110 DATA b3,36,e2,23,36,b9,c3,12
120 DATA b3,21,d1,7e,36,00,c3,da
130 DATA 6b
140 MEMORY &3000
150 FOR x=&4000 TO &4060
160 READ a$
170 POKE x,VAL("&"+a$)
180 NEXT
190 LOAD""
200 POKE &7924,c9
210 MODE 0
220 CALL &4000
```



Exolon

Justin Cole of Colchester has hacked the disk version of *Exolon*. It gives you infinite ammo, grenades and lives.

```
1 ' Exolon - disk
2 ' by Justin Cole
3 ' Amstrad Action December 87
10 MODE 1:add=&BF00
20 FOR l=1 TO 15
30 chk=0
40 READ a$
50 FOR f=1 TO LEN(a$) STEP 2
60 a=VAL("&"+MID$(a$,f,2))
70 POKE add,a:chk=chk+a:add=add+1
80 NEXT f
90 READ c:IF c<>chk THEN
PRINT"Error in line";
   120+(1*10):END
100 NEXT
110 PRINT"Insert exolon disk,
press a key":CALL &BB18
120 CALL &BF00
130 DATA 2174bfcdd4bc2271,1092
140 DATA bf793273bf2100c0,893
150 DATA 16040e000620cd50,363
160 DATA bf21000116080e24,305
170 DATA 0637cd50bfaf327a,884
180 DATA 1f32252a325911f3,559
190 DATA 018c7fed492100c0,803
200 DATA 11006f010040edb0,606
210 DATA 2100c01101c001ff,691
220 DATA 3f3600edb0c30001,726
230 DATA 3e093270bf1e00e5,683
240 DATA df71bfe130fa2424,1122
250 DATA 0c3a70bf3d20033e,531
260 DATA 09143270bf10e8c9,831
270 DATA 0000000084000000,132
```

Elliot Perks from Newcastle-under-Lyme has sent in this poke for *Exolon* on tape. It gives you infinite lives, ammo and grenades. It also makes you immune to everything and allows you to start in any of the zones from 0 to 124. Method 1 poke.

```
1 ' Exolon - tape
2 ' By Elliot 'TPH' Perks
3 ' Amstrad Action December 87
10 MODE 1:MEMORY &3FFF
20 BORDER 0:INK 0,0
30 INK 1,6:INK 2,18:INK 3,26
40 PRINT "Loading Exolon..."
50 LOAD "!loader",&4000
60 POKE &4153,&40
70 POKE &4154,&0
80 add=&40
90 READ a$
100 IF a$="end" THEN 140
110 POKE add,VAL("&"+a$)
120 add=add+1
130 GOTO 90
140 CALL &4000
150 ' Infinite lives
160 DATA af,32,25,2a
170 ' Infinite ammo
180 DATA af,32,59,11
190 ' Infinite grenades
200 DATA af,32,7a,1f
210 ' Immune to everything
220 DATA af,32,79,07,21,00,00,32
230 DATA
78,12,22,79,12,3c,32,8c,07
240 ' Starting zone
250 ' the 00 is the zone that you
260 ' start in .Any value between
270 ' 0 and 7c can be used.
280 DATA 3e,00,32,fa,12,af,32
290 DATA 0e,01,21,00,00,22,0f,01
300 ' End of pokes
310 DATA c3,00,01,end
```

HACKER II

Martin Shroeder from West Germany has sent in a list of the codewords for *Hacker 2*.

1) 00987	6) WHITE 50
2) ROA	7) 07041776
3) HIPPY	8) WHITE 6
4) COVER	9) WOGAN
5) RED 7	10) BLUE 1

If you type in "cover" you will be asked for your name. A digitised picture appears and you can make a hard copy if you have an Epson compatible printer by pressing the D key.

WINNERS

The winner of this months Mastergame and all the Raves is **Peter Wiseman** for his *Enduro Racer* and *Mission Jupiter* pokes.

The five runners up who will be receiving either the Mastergame or a Rave are: **S Basford** for his *Motos* poke, **Ian Brook** for his *Kat Trap* tips, **Richard Ormson** for his *Armageddon Man* tips, **Phil Howard** for his pokes for *Renegade* and *Mag Max* and **Justin Cole** for his *Exolon* poke.



Road Runner

Another quick tip. This time it is from **M. Foster** of Clacton who says that if you hold down the U and S keys on the *Road Runner* title screen, the game will be in in cheat and you will have infinite birds. Pressing them again switches the cheat mode off.





DRUID

Here's a quick *Druid* tip by **Richard Burn** from Ipswich. When you get a high score type in "Paul Hutchinson ?" and the next time you get a high score type in "The Covenant". You will then have infinite energy.



IN THE LIVING DAYLIGHTS



Daniel Hammon has sent in playing tips for the last two levels of the *Living Daylights* which lets you finish the game.

Level 7 – The Military Complex
Weapon – Bazooka
Shoot the first man with the PPK and then change to the bazooka. When the helicopter makes holes just jump, don't try to run and jump.

Level 8 – Whittaker's House
Leave the weapon on bazooka. As soon as the man comes on the screen shoot him and the game is finished.

Kat Trap

Ian Brooks of Southampton has sent in some playing tips for *Kat Trap*.

The Spaceport:
You shouldn't really lose any lives here. When you start off, fire a few times into the next screen. This should kill any Katmen who are there. Always fire before entering a screen on any level.

If a Katman does fire at MT-ED, duck and wait for the bullets to pass overhead, shoot him before he shoots back. Don't hang about firing before you get to the bullet supply or you could run out and get killed.

Ruined City:
Jump over the holes because they contain sewer beasts which grab at you. Try to shoot the asteroids because you could be bounced onto one of the rocks. The rocks can be destroyed by hand grenades. This is quite easy for the slow ones, but the faster rocks are really hard to hit. They can also be jumped over when they are at the bottom of the bounce.

Charred Forest:
When you get near to the edge of the screen and you have to jump a hole, fire a few times to destroy any fire demons that might be waiting on the other screen, otherwise you may hit them. Get the laser quickly because sometimes the hole it is next to opens up and engulfs it.

Lake:
Just shoot the fish.

Dry Rocky Desert:
Shoot the tanks with the laser as you will need the rockets later. Be careful that there are no rocks nearby when approaching tanks or you may get bounced onto one. Don't throw grenades wildly as you tend to run out about now. There are also holes which have to be jumped.

Compound:
Shoot or dodge the asteroids and don't use rockets on Katmen because you'll need them later.

Alps:
Jump from mountain top to mountain top if there is a gap, because if you walk in it's curtains for MT-ED. You can grenade the icemen walking in between the mountains when they are at the opposite side to you.

The Castle:
Don't walk onto the mat on the floor because it takes a life away. It can be jumped. The enemy are Katmen and Mechnokats. There is another pad near the exit. Don't use rockets on Katmen unless it is absolutely necessary.

Scrap Crusher:
Only Mechnokats, but there are also crushers in rows of three. Shoot the Mechnokats before you go through the crushers or you could be in trouble.

Highway:
Tanks, Katmen, holes and Sewerbeasts.

Lair of Mechnokats:
Nice and relaxing, just fire away and destroy the Mechnokats.

Secret Tunnel:
Only bouncing rocks. Refer to ruined city tips.

Minefield:
Throw a grenade, walk half the distance it travelled and throw another, carry on like this for the whole zone. If a mine explodes jump over the hole.

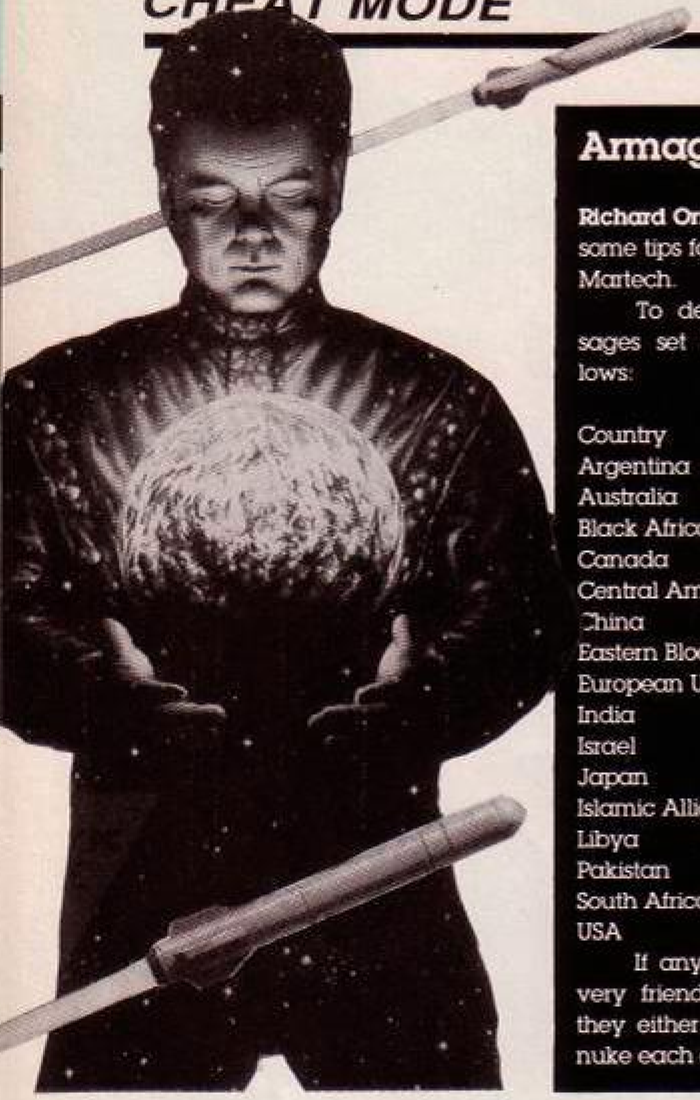
Nerve Centre:
Occupied by fire demons, Katmen and Mechnokats. When you get to the end of the zone, stand by the opening doors and you will access the deathgrid. When you have destroyed this, you will see the computer console on fire. Now you have to return to the spaceport.

Enduro Racer

Peter Wiseman from Cheshire has sent in this poke for *Enduro Racer* which gives you 90 seconds to complete a stage or infinite time. You also have an improved engine with greater acceleration, top speed and brakes. It is a Method 1 poke.

```
1 ' Enduro Racer - tape
2 ' by Peter Wiseman
3 ' Amstrad Action December 87
10 MODE 1:OPENOUT"d":MEMORY 1799
20 sum=0
30 FOR a=1800 TO 1877
40 READ a$:c=VAL("&"+a$)
50 POKE a,c:sum=sum+c
60 NEXT a
70 IF sum<>8141 THEN 230
80 POKE &734,&90:' 90 seconds
90 POKE &73F,&3C:' infinite time
100 POKE &740,0:' powerful engine
110 LOAD""
120 CALL 1800
130 DATA 3a,96,bb,2a,97,bb,32,56
140 DATA 07,22,57,07,21,22,07,3e
150 DATA c3,32,96,bb,22,97,bb,c3
160 DATA 05,40,cd,56,07,21,33,07
170 DATA 3e,c3,22,f0,ac,32,ef,ac
180 DATA c3,00,ac,3e,60,32,66,45
190 DATA dd,21,e6,64,dd,36,6d,a7
200 DATA c9,dd,36,00,00,dd,36,2b
210 DATA 19,dd,36,04,be,dd,36,0a
220 DATA e6,dd,36,14,08,c9
230 PRINT"Data Error"
```


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Armaggedon Man

Richard Ormson of Bury has sent in some tips for *Armageddon Man* by Martech.

To decode intercepted messages set the frequencies as follows:

Country	
Argentina	0,1,2,3,4,5,6,7
Australia	0,2,4
Black Africa Rep.	4,5,6,7
Canada	2,3,4,7
Central America	1,3,5,7
China	0,4,7
Eastern Block	2,4,6
European Unite	4,5,6,7
India	4,5,6,7
Israel	1,3,5
Japan	2,3,5,6
Islamic Alliance	1,3,5,7
Libya	1,2,3,4,5,6
Pakistan	1,2,3,4
South Africa	2,3,7
USA	0,2,4,6

If any two countries become very friendly watch out because they either become close allies or nuke each other.

Airwolf II

Here's a short poke for *Airwolf II* on the Trio compilation tape by **Martin Pleasance** from Barnsley. It gives you infinite lives or as many lives as you like. It is a Method 1 poke.

```
1 ' Airwolf II - tape
2 ' by Martin Pleasance
3 ' Amstrad Action December 87
10 FOR n=0 TO 15
20 READ a
30 INK n,a
40 NEXT
50 DATA 0,0,0,26,0,0,6,0,1
60 DATA 2,5,11,14,20,1,3,10
70 MODE 0
80 BORDER 0
90 OPENOUT"d"
100 MEMORY 699
110 LOAD"!airpic",&C000
120 LOAD"!"
130 POKE &786F,0:' infinite lives
140 POKE &822B,100:' lives
150 CALL 26192
```

Spy vs Spy

Stephen Trimmer from Broadstairs has sent in this poke for the tape version of *Spy vs Spy* which makes the computer controlled spy do odd things. It is a Method 1 poke.

```
1 ' Spy vs Spy - tape
2 ' by Stephen Trimmer
3 ' Amstrad Action December 87
10 MODE 0:ENV 6,5,-1,10,10,-1,7
20 ENV 7,3,5,1,15,-1,5
30 ENV 8,1,4,1,4,-1,1
40 ENV 9,3,5,1,10,-1,15
50 RESTORE:FOR n=0 TO 11
60 READ a:INK n,a:NEXT
70 OPENOUT"d":MEMORY &1FFF
80 LOAD"!loadcode",&6000
90 POKE &6089,201
100 CALL &6000
110 POKE 0,201:POKE &18B0,0
120 POKE &18B1,0
130 CALL &302
140 END
150 DATA 24,1,26,0,13,6
160 DATA 14,16,18,24,3,15
```

Saboteur II

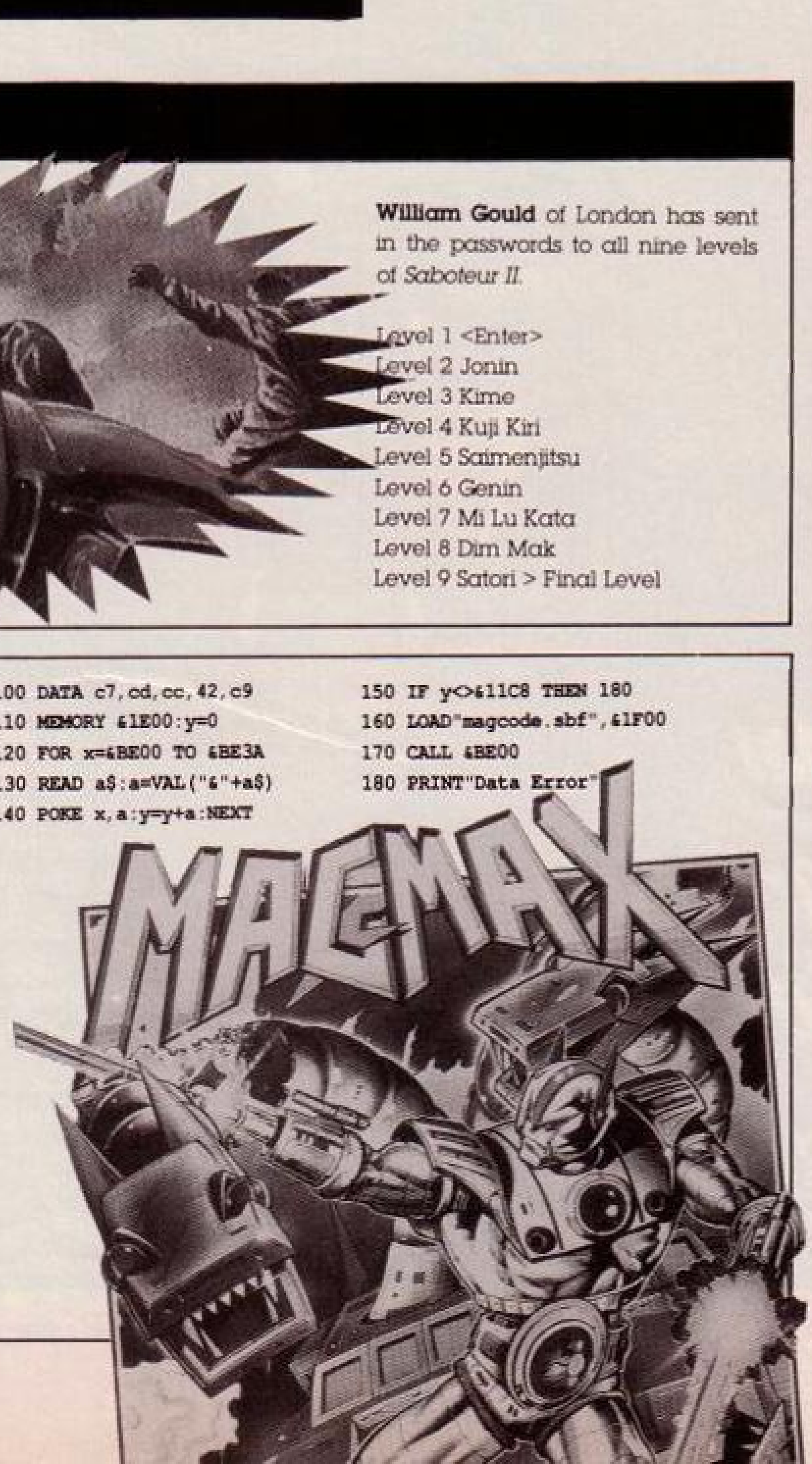


William Gould of London has sent in the passwords to all nine levels of *Saboteur II*.

Level 1 <Enter>
Level 2 Jonin
Level 3 Kime
Level 4 Kuji Kiri
Level 5 Saimenjitsu
Level 6 Genin
Level 7 Mi Lu Kata
Level 8 Dim Mak
Level 9 Satori > Final Level

Phil Howard has been hacking again. This time *Mag Max* on disk gets the treatment. Phil claims to have knocked up this routine in a shop while the assistant wasn't looking. You get repeat firing and pressing the "+" key gives you an extra life.

```
1 ' Mag Max - disk
2 ' By Phil Howard
3 ' Amstrad Action December 87
10 DATA 21,00,1f,11,00,02
20 DATA 01,00,87,3e,55,ae
30 DATA 12,23,13,0b,78,b1
40 DATA 20,f5,21,1a,16,22
50 DATA c0,02,3e,1c,32,bb
60 DATA 02,21,2d,be,11,15
70 DATA 16,01,0e,00,ed,b0
80 DATA c3,00,02,cb,67,c8
90 DATA 18,09,3e,06,32,e8
100 DATA c7,cd,cc,42,c9
110 MEMORY &1E00:y=0
120 FOR x=&BE00 TO &BE3A
130 READ a$:a=VAL("&"+a$)
140 POKE x,a:y=y+a:NEXT
150 IF y<>&11C8 THEN 180
160 LOAD"magcode.sbf",&1F00
170 CALL &BE00
180 PRINT"Data Error"
```



TOOTS CORNER

In the *Barbarian* poke last month the letter l was used as a variable and we received several calls from people who thought it was a number 1. *The offending lines are* repeated below with a different variable.

```
170 RESTORE 180
180 DATA &46,&6d,&6d,&6c,&70,&6c
190 FOR n=1 TO a:READ g,h:NEXT
200 POKE &1016,g:POKE &1017,h
210 CALL &1000
```

Frequently we receive calls in which people have mistaken letters for numbers so here are a few tips for correcting any mistakes you may have made.

1) Remember that only numbers and the letters a-f can be poked into memory.

2) Always check that you have not used the letter l instead of the number 1 or the letter O instead of the number Ø.

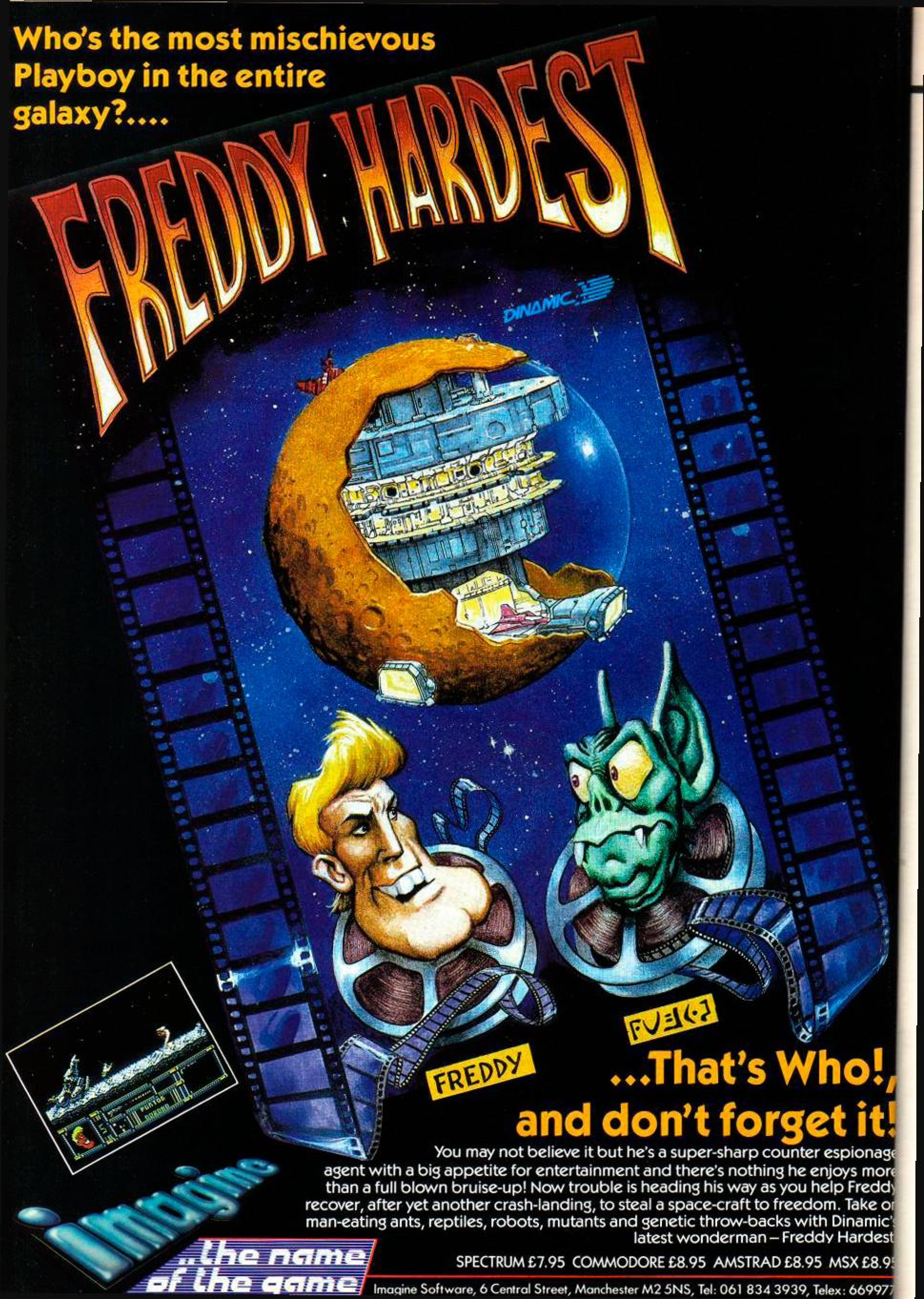
3) Check that you haven't used a fullstop instead of a comma in a data statement.

4) Type mismatch errors are usually caused by typing errors in data statements so check the data carefully.

5) Out of memory errors can usually be corrected changing the line with the MEMORY command in to the following. (MEMORY 499 will be used as an example)

```
OPENOUT"D":MEMORY 499:CLOSEOUT
```

This should cure the problem in most situations.


Who's the most mischievous
Playboy in the entire
galaxy?....
FREDDY HARDEST
DINAMIC
FREDDY
...That's Who!,
and don't forget it!
You may not believe it but he's a super-sharp counter espionag
agent with a big appetite for entertainment and there's nothing he enjoys mor
than a full blown bruise-up! Now trouble is heading his way as you help Fredd
recover, after yet another crash-landing, to steal a space-craft to freedom. Take o
man-eating ants, reptiles, robots, mutants and genetic throw-backs with Dinamic'
latest wonderman – Freddy Hardest
imagine
..the name of the game
SPECTRUM £7.95 COMMODORE £8.95 AMSTRAD £8.95 MSX £8.9
Imagine Software, 6 Central Street, Manchester M2 5NS, Tel: 061 834 3939, Telex: 66997

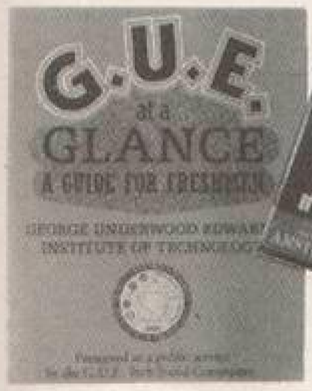
THE PILGRIM

Greetings, wandering ones, and welcome to the hallowed pages of Pilg. This month there's a bumper treat for Infocom fans in the shape of the Lurking Horror and Stationfall. If they don't scare the balrogs out of you then Yes Prime Minister and the verbosely vicious Sir Humphrey Appleby might. But for action and controversy you can't beat the letters, any hotter and they'd have burnt down the Post Ofice.

Lurking Horror

Infocom £24.99, disk only





Bob Wade walks up to the Pilgrim one dark and stormy night, to ask him to review *Lurking Horror*. "But I've already reviewed it!" croaks the Pilg, terrified at the thought of another long night playing this spine-chilling game, with nothing but the Thing to keep me company...

Yes, dear readers, it turns out that this is one of those famous Pilgrim blunders. I've been so busy playing the game that all thought of reviewing it seems to have been put entirely on one side. Now, as the moon rises over Future Publishing, and the most terrible blasphemies scroll slowly across the flickering screen, I must reveal the hideous, the unspeakable truth...

Let me explain. My name is Frotz, cognominate Dean Jr. I am a student at GUE, the George Underwood Edwards Institute of Technology, where I was studying...Oh what the heck, I've failed my exams anyway. At the end of last term, after a real bender with the boys, I suddenly remembered that I had failed to complete my Classics paper. Twenty pages to write, and it was due the very next day. Aaagh! Nothing for it but to head over to the computer lab and get it down on silicon, ready for print out demain matin.

Well, that's how it started. I made my way through the bitterly cold night, trying to ignore the hoots of mirth, drunkenness, and debauchery coming from the Dorm, and found myself in the computer room with no-one but some weirdo hacker to keep me company. In fact the whole evening seemed really out-of-order. Perhaps it was the strange disappearances of the last few weeks, or perhaps it was some sixth sense. Boy! How I wish I'd got that essay done sooner!

Sitting at the terminal, something really weird happened. I was editing a text file, when suddenly I realised there was a whole load of bumph on the screen that I'd never written. Talk about a corrupted file, this stuff was corruption itself! Whoever designed the character set must have been drinking something *really* filthy. Although I couldn't make head or tail of it, it seemed to make some awful kind of sense...and as I gazed at it flickering across the display, like the pulsating, nictitating eyelid of some hideously slimy reptile, I fell into some kind of trance...found myself in some strange place...crowds of screaming, shoving people...and there, there IT was...

OK, forget the scene setting, but Pilgs should realise that once you reach this point in *Lurking Horror*, there's no going back. Providing you succeed in solving the first few simple puzzles of the game, everything I've just described will soon be happening to YOU!

When you come round from your trance, there's nothing for it but to set off on an in-depth (and I mean in-depth) exploration of the GUE buildings, and their hideous secrets. The game is a masterpiece of Infocom program design, written by Dave Liebling, author of *Starcross*, *Suspect*, and co-author of the original *Zork* trilogy. *Lurking Horror* is his best, and certainly one of Infocom's finest adventures to date.

It's good first and foremost because of its authenticity. If you haven't read H.P.Lovecraft and the Call of Cthulhu, or some of his other works, then you should know that the style of "horror fantasy" is slightly different from the style we nowadays associate with "horror". This isn't a series of blood-curdling episodes in which half-crazed madmen leap out from clothes cupboards and chop you to bits with the bread knife; nor is it a series of outrageously unbelievable nonsense involving mutant rats, zombies, or other such pulpy rubbish. Horror fantasy of the Lovecraft genre relies on building up an atmosphere of dread, culminating in the confrontation between you, and IT...

Lurking Horror manages this atmospheric conjuring trick brilliantly, and does it with a great sense of humour as well (otherwise there would be a danger of the program being insufferably pretentious). Whether you're trying to humour the hacker (a beautifully created cameo character) or wrestling with a chinese takeaway, the humour and ingenuity of the program remains consistently impressive. Finally, as you descend into the darkness below the college, "You can hear in the distance a chittering, scratching sound....The sound is louder now....It sounds like small animals. Is it rats?"

You bet your sweet sally it is, Frotz old chum...and boy, are you in for it now! For all those interested in experiencing a nightmare you can switch off, but which defies you to do so by drawing you further into its web, this game is highly recommended.

ATMOSPHERE 96% INTERACTION 92% CHALLENGE 90%
OVERALL 94%

Please note this is the highest atmosphere rating the Pilg has ever given.

Stationfall

Infocom £24.99, disk only

Steve Meretsky has justly acquired a reputation as one of Infocom's most inspired humourists, with *Hitchhiker's Guide* and *Leather Goddesses* as his more recent and renowned releases. He was also responsible for *Planetfall* and *Sorcerer*.

Planetfall was particularly notable for its introduction of the hopeless robot Floyd, who couldn't tie a shoelace even if you put him through a ten year intensive induction course. He does, however, have a certain bumbling charm that would appear to have endeared him to many Infocommers, and *Stationfall* puts him back into the action.

One of the problems with producing a a game that is in some senses a sequel (to *Planetfall*) is coping with players who may not have played the earlier game. Meretsky does this by using the FOOTNOTE feature, so occasionally a reference to a character will be followed by the message (FOOTNOTE 3). Typing the command FOOTNOTE 3 will give you all the background detail you require.

To some extent (and with the notable exception of *Hitchhikers*) Meretsky's games are traditional adventures in the sense that they place a lot of emphasis on exploration, discovery, and puzzle-solving. The spice is added by Meretsky's inimitable humour.

Stationfall takes place in the far future, where as a (human) native of Gallium you join the Stellar Patrol and (after your success in *Planetfall*) find yourself promoted to Lieutenant First Class. Although the principle task of the Patrol is to scour the galaxy searching for survivors of the last great galactic conflict, which imposed a 10,000 year Dark Age on the space civilisation, you find your immediate task in the game is depressingly similar to the ones you've been doing for the last five years since your promotion - pop over to Space Station Gamma Delta Gamma 777-G 59/59 Sector Alpha-Mu-79 to pick up a supply of Request for Stellar Patrol Issue Regulation Black Form Binders Request Form Forms.

This forms business is just one of the many fruits of Meretsky's gentle poking at bureaucratic dingbats that amuses throughout the game. The program comes with some excellently written blurbs, including a selection of....forms. They all bear careful reading and will amuse almost as much as the game itself. My personal favourite was the Spaceship Activation Form, which is akin to our driving license and lists the space vehicles for which it is valid. Starting off in a serious vein with various spacetruck models and so on, it soon degenerates into lunacy with the "Zero energy puddle-sitter, Sitting Duck brand" and, finally, the "Semi-Oofing Gigbung-powered Double-Fooz".

Anyway, you set off for the space station to collect the forms and find, as soon as you arrive, that the place is deserted apart from a hostile repair droid or two (easily avoided) and an intellectual robot by the name of Plato, who is immediately befriended by Floyd. At this stage the exploration aspect of the game really comes into its own. The program comes with a detailed set of plans of the space station, which is on nine levels. The plans enable you to set about tackling the mystery in an organised manner that is both satisfying and, as you encounter various enigmas, exciting. After two hours of playing, I had still explored only two of the levels available, but already the items and clues I had encountered had me scouring the plans, checking out which section I would visit next. Shades of the detective story here, and no bad thing either...

Floyd provides much of the humour in the game, alongside Plato. He falls into the Thorin category of character, by which I mean that there isn't an enormous amount he can do, but he does keep you amused with his continual antics. My particular favourite is when he mentions how he "helped someone find a lost paper-clip". Together with the book-wormish Plato, the two robots play hide-and-seek together, and generally tumble about like a couple of metal kids throughout the game.

The mystery of the abandoned space station rapidly exerts a strong fascination for the player, and even when a message comes over the communications system from your home base telling you to return home because a supply of the required forms has been discovered, you're unlikely to hot-foot it back to your spacetruck. And even if you do, you won't get very far. By this time, you're in the mood to try anything, and hitting the emergency beacon signal button you get the following the message:

"At the conclusion of this recording your message will be sent. Nothing can go wrong...skip...go wrong...skip...go wrong...skip...go wrong..."

ATMOSPHERE 90%   INTERACTION 89%   CHALLENGE 89%   OVERALL 90%

Plundered Hearts

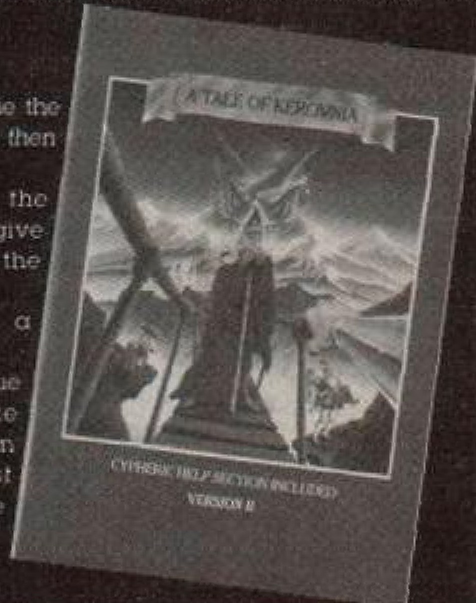
Infocom are about to break new ground by producing an adventure in which the main character is a woman and the target market is also female. About time to as far as this liberated crusader's concerned.

The game has been written by Amy Briggs who researched romantic fiction and 17th century costumes and ships to come up with a tale of love and adventure. The tale takes place on the schooner Lafond Deux, where your thoughts are of your ailing father awaiting your care.

Infocom expect the game to appeal to both male and female adventurers. It's a very intriguing prospect, so watch this space for details of a release date.

The Clue Pot

Here's this month's timely selection, including a few Infocom tips as we seldom seem to get these sent in by readers. Many thanks this month to Sandra Sharkey, Mark Bowles, Alexander Johnson, Mark Bowles, and G.L.Wheeler.



The Pawn
To get past the boulder, tie the shirt to the rake and hoe then lever the boulder.
Ask Kronos about the wristband and he will give you a chest to give to the adventurer.
Examine the horse for a laugh.
Mix the red with the blue and the green to make white. You will find them in a pouch in the forest clearing after giving the guru the bowl of snow.

Zork III
Don't kill the figure that you meet in the shadow lands - fight until you are told that he is badly wounded then "gethood".
Give the old man in the engraving room some bread and he will open a secret passage.
Wait by the chest until someone comes and offers to pull it up for you. Tie rope to chest, wait until he comes back for you, grab rope, he will pull you up and give you a staff.

Planetfall
Search Floyd before you switch him on 'cos he's ticklish.

Lurking Horror
The light is hidden in the lift.
The hacker is partial to chinese food when heated. (NB Try 9 hi 500)

Spellbreaker
Frotz the burin of the knife for light. The zipper is waterproof. The grouper likes bread.

Rebel Planet
Examine the steps for the key for the alcove.
Answer SAROS to the man in HQ.

Gremlins
To get past the locked door drop Gizmo in vent system.

Kentilla
To open chest in castle, dip the gold key in barrel to turn it to iron then open chest.

Warlord
Give acorns to raven and free hare.

Robin of Sherlock
Listen to the large window and redial when you have enough evidence.

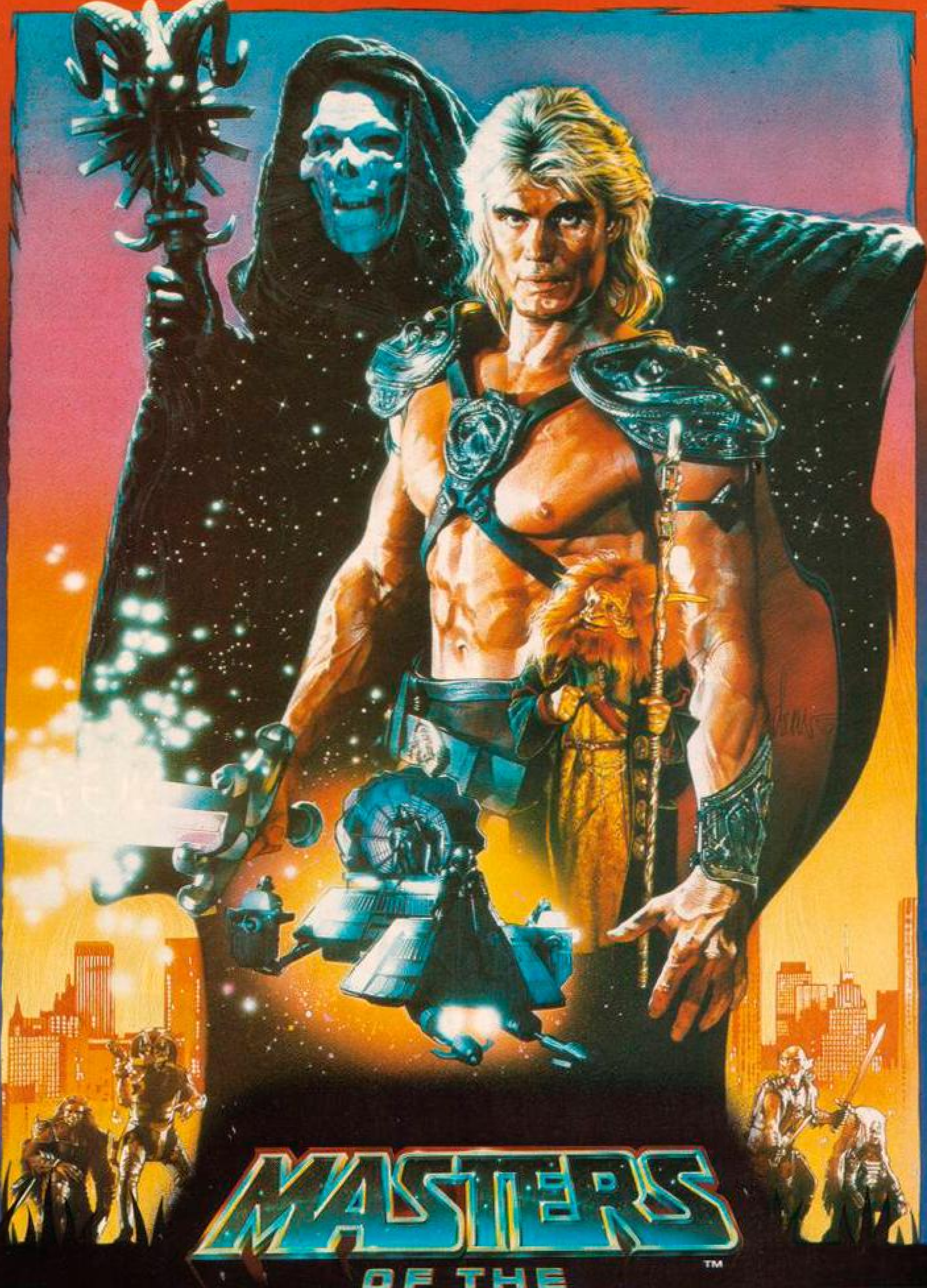
The Boggit
The sword is in the cauldron.
Say LUX to get past trolls.

Infidel
To get the Scarab, fill silver chalice with water (to make it the same weight as the gold chalice): put one chalice on right disc and the other on the left disc. It is then safe to get the scarab.
To avoid being killed by the sealed door, wedge beam under lintel before you break seal with axe.

MASTERS OF THE UNIVERSE HAS COME TO LIFE!!

• Now you can live it, as the conflict between good and evil continues •

Masters of the Universe, the Movie, brings to life the deadly, eternal conflict between good and evil. Masters of the Universe the computer game of the film allows you to control the forces of good to do battle with the forces of evil, the prize being the KEY to time travel and with it the title Master of the Universe.
Slipping through a vortex in time the KEY has fallen into the hands of an unsuspecting American college student.



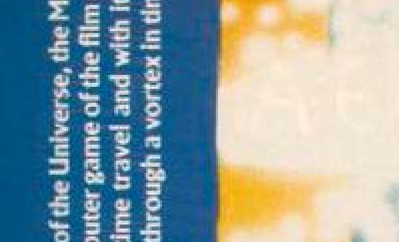
Little does he realise the awesome power he holds. Thinking it to be a musical instrument he fails to realise that every note he plays attracts the ruthless Skeletor and his develish army led by the frightening powerful Evil-Lyn. With the key in their possesion who can stop them escaping downtown America and returning to create chaos in Eternia? Only one man can save earth from this evil domination as HE MAN meets Skeletor in the battle for Eternia, the final chapter that will seal the fate of mankind forever.

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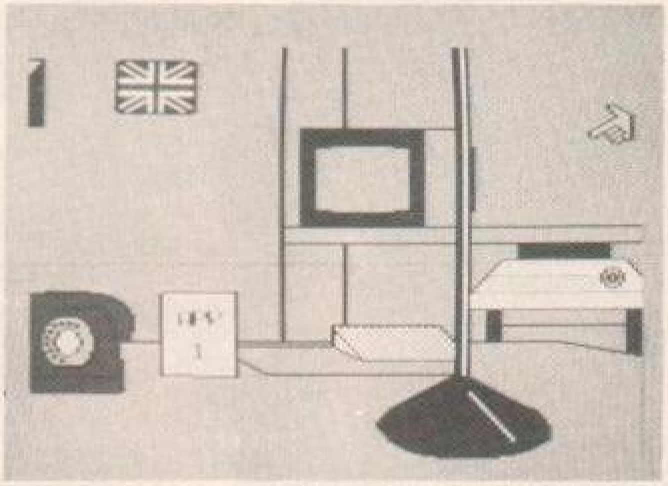
Yes Prime Minister

Mosaic £14.95 cass, £19.95 disk

If someone builds a car out of matchsticks, and then gives it to you saying "Why don't you pop off for a drive?", do you think that (a) they're bonkers; (b) you're bonkers for listening to them; (c) they're not only bonkers, but also to be blamed for wasting your valuable time?

I only ask because I'm a bit at a loss as to what to say about this game. First and foremost, it's absolutely no good as an adventure, or even - I would say - as a computer game of any kind. On the other hand, like a car built out of matchsticks, it does have a certain charm. Once you've seen it, however, the charm, by failing to offer any real value, begins to disappear.

YPM is a multiple-choice game, rather like the *Adrian Mole* programs done by Level 9 (and also marketed by Mosaic). However, instead of choosing between different actions to alter the course of the plot, you choose between different points of view. These points of view, usually part of a humorous conversation between Prime Minister Jim Hacker and his cronies Sir Humphrey Appleby (Cabinet Secretary) and Bernard Woolley (Private Secretary to the PM), develop into policy statements that influence your ratings in the poll. The aim of the game is to get as a high a poll rating as possible.



Most people will already realise that the game is based on the TV program of the same name. Like the telly series, the scenario centres on dry wit and humour, concerning such issues as a Ministry for Women (bound to offend the male voters) or the indiscretions of a drunken colleague. In each case, you, as PM, must steer your way through a witty conversation on the subject, selecting at frequent junctures the replies and ripostes that will impress your cronies and, if necessary, lead to the correct solutions being applied to the various problems.

The *Adrian Mole* programs did all this simply by scrolling the text down the page and asking you at various points to choose between three options. *YPM* is much more ambitious - it shows you the interior of your office, complete with desk, two drawers, blotter, two telephones, teletype, and intercom. There's also a safe (which holds your current poll rating) and a door to the outside world.

Not all of this is visible at once, so you use a pointer to scroll the screen and then, after positioning it on an object, clicking the fire button to use that object. It's important to realise that you can't use an object at any time, but just when the program draws your attention to it by flashing it, or beeping, or by some other signal. Thus in Adrian Mole, the text would have read "You receive a phone call from the Cabinet Secretary, he says....", in *YPM* the telephone flashes, you click on it, and a text scréen prints out the ensuing conversation, complete with options.

The game takes place in five sections, or days, being one week in the life of a PM. Each day has its own appointments schedule, which requires you to attend various meetings. Thus you must juggle answering the phone and reading the occasional memo (delivered to your desk) with clicking on the door to leave your office and attend a conference with one of your colleagues.

Clicking on the door gives you a menu of destinations - Sir Humphrey's office for example. Should visiting one of these be appropriate at that time (indicated by the clock on your desk) then rather than see a display of the interior of that location you will simply get a text description of what takes place there – another debate with more options to choose from.

The problems with this game are two-fold. First, the game format (as with the Mole games) forces the player into a very passive role, limited to simply choosing between different points-of-view presented by the program. Secondly, however often you play the game there really isn't

sufficient variety in the storylines to keep your interest. Naturally, this is all because of the design concept of the game, which is why I mentioned the matchsticks earlier. Frankly, it's not a concept that appeals to the Pilg one jot.

I don't deny that the text is often extremely witty, and that the first hour's playing was most enjoyable. The second hour, however, saw a number of repetitions of the storyline; the third hour led to the machine being switched off. Mosaic point out that there are a number of "random scenarios" that will occur in a game, making each game different. What this actually means is making about 30% of each game different - the other 70% will rapidly become depressingly familiar. At the price, this sort of repetition, however whimsical the subject matter, is really not on. The usual adventure ratings are not really appropriate here, but for what it's worth I've given some indication of the "feel" of the game, (atmosphere), its scope (challenge), and my personal estimation of its overall value.

ATMOSPHERE 68% INTERACTION N/A CHALLENGE 20%
OVERALL 35%

Pilgrim's Post

Constructive criticism

"...Much of your review of my games *Countdown to Doom* and *Philosopher's Quest* are taken up with the complaint that you expect "EXAMINE" to work in all games. My philosophy has always been - and always will be - that *the computer is your senses and hands*. Anything that you see should and must be passed on to the player immediately: I can't see the point of:

There is an X here
Examine X
You find a Y

when

There is an X here. It has a Y attached... (or whatever)

is what you, the player, actually see when you look at the blessed thing. Another example which gets my goat is:

There is a piece of wood here.
Examine wood.
It is Y-shaped, and would make a fine catapult if it had elastic.

(almost verbatim from one best-selling game!). Why not:

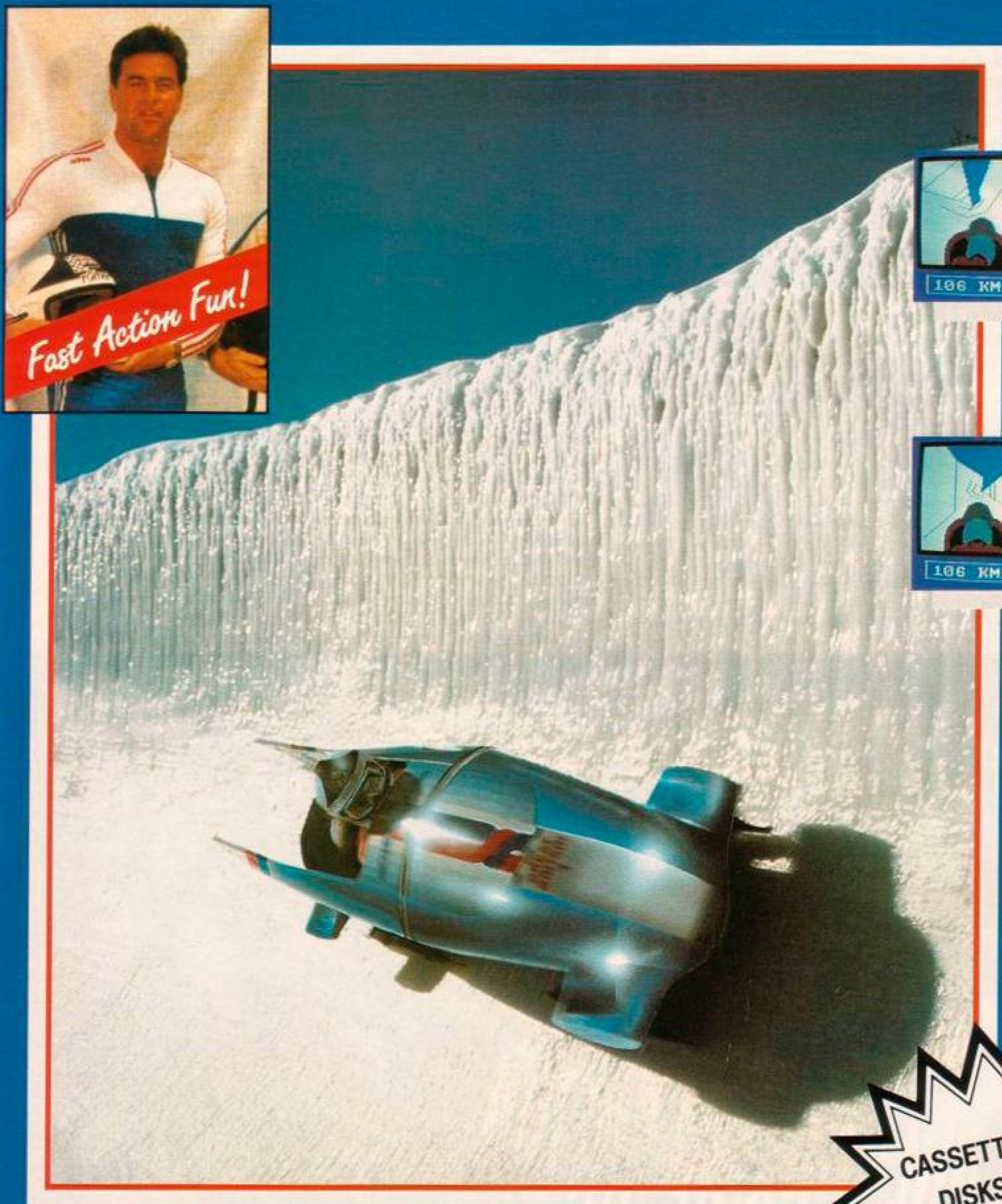
There is a Y-shaped piece of wood here. It resembles a catapult without the elastic.

or words to that effect? So I and my colleagues have always eschewed the use of "examine" - it's a waste of player time and furthermore is really programmer dishonesty; it creates a potential puzzle "free" because the player might forget to do an "examine".

On the subject of "examine" and the "dangerous blob", fatal to get: what information would you expect "examine blob" to produce that would tell you that touching it was fatal? Tell me what there is about an earthly jellyfish (which would be long extinct by the time Doom happens!) that would tell you not to touch it if you'd never come across one!

No RAMLOAD, etc? Gee - why not save? It's well-nigh instant,

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anyway, since this is a disk-based game...

No pictures? I do not always only buy books which have pictures. I am reasonably literate and have discovered by trial and error over the years that the best novels come without pictures (Infocom claim correctly that text is infinitely more atmospheric than pictures). By this I do not wish to make a claim for the quality of my work versus others! I always turn off the pictures after the first few passes of a graphic adventure, and get on with solving it, usually wishing that more effort had gone into the programming and less into the pictures. Pictures, with a disk-based system, are cheap to provide - one merely pays an artist and digitises. But if it's the graphics that make a game worth buying, that says something nasty about the programming...

Looking back at your comments, what I think I read is that you like to "live" in the games you play as a primary motive, while solving them is secondary. I have no problem with that - indeed much of "Return to Doom", which I've just completed and am having gametested, will permit "living", "discovery of the ground rules", call it what you will. For example, you like to talk to characters; I don't. (I've never yet found any decent programming for them, except for Infocom)...I believe that good plotting and good puzzles are what keep a game going over the years. The original mainframe *Zork* is a good example. It's still around, and in cut-down micro versions, not because of its parser (which has, as do all fancy parsers, lots of infelicities - I know of only one puzzle in one adventure that needs a fancy parser); not because of its graphics (it has none); but because it's witty, with some interesting puzzles. Well, we strive for wittiness, but that's in the eye of the beholder; but we do achieve interesting puzzles..."

Peter Killworth, Oxford

I'm very pleased that Peter has written at such length, because I think he raises some interesting points. First, the "examine" question. I quite understand your argument and am even inclined to agree with you - there's no point in an EXAMINE that simply serves to draw out the gameplay to no real purpose. However, I feel that in real life we do "examine" objects to see if there is more to them than meets the eye, and in an adventure I believe that occasionally the "examine" command is vital in heightening the atmosphere of a game. A good example would be the books in the library in Guild of Thieves, where you can "read" (i.e. examine) a large number of objects and have fun doing so. However there's no doubt that some puzzles have come to depend too much on the "examine" command, like the catapult one you mention . On the other hand, I feel that excluding the command altogether, as you do, is moving too far to the other extreme.

My concern about the fatal blob was not altogether due to the absence of the "examine" command, and if I gave that impression (I don't have the review to hand) I apologise for being misleading. It's just that I have never been enamoured of having curiosity in a game rewarded with death without some form of warning. Some software houses get round this by asking quite directly "Do you wish to continue?" or "Are you sure you want to do that?". Although a bit feeble, this at least gives the player cause for thought. Better by far is to introduce the warning into the gameplay, for example - if there was a stick to hand I might use it to prod the blob first, whereupon seeing the stick sizzle and burst into flame would enable me to save my skin and congratulate myself on being a clever dick into the bargain!

As far as characters are concerned, I don't see that the failures of other programmers should be reason not to try and improve on their efforts. There's no doubt in my mind that characters, well-programmed, can add tremendously to a game and that only by continuing to address the problems involved will any progress in this area be made. Given a bit of disc space, a reasonable parser, and careful game design, even an inefficient character-handling module can produce good results.

Finally, you're point about parsers. I must disagree heartily on this one...I agree that the vast majority of games (even those claiming fancy parsers) can be satisfactorily played using simple inputs. This is, however, a point against poorly designed games, and not against complex parsers. To give a few examples of powerful parsing adding considerably to gameplay, I would cite (1) Level 9's ability to command a character to carry out actions while you get on with something else; (2) the relative positioning in Magnetic Scrolls games, with solutions such as "Smear x on y" or "Look under z"; (3), for sheer convenience, the GO TO, FOLLOW, and FIND commands now used by some companies; and (4) as a personal favourite, the use of the HIDE command in Infocom's Suspect.

I hope those readers who find your points of view agreeable will proceed to try your games, whatever opinions I may have expressed about them, and particularly now that Topologika have reduced their price to something approaching a reasonable level (see separate notice in this column). I also believe that your analysis of what I look for in a game (i.e. the "being-there" element) is entirely correct. I'd like to be impartial on that subject, but frankly I can't help feeling that my approach is the best one to take, though I'm pleased that you should have taken the trouble to write in and express the opposite view (which so few people bother to do) for the benefit of other readers.

Not constructive criticism

"...We found your review of *Rick Hanson* in Issue 24 (September) of Amstrad Action prejudiced, insulting, and unbelievable.

For a start "Welsh outfit" implies that we are non-professional, "cowboy", "rip-off" merchants supplying garbage to the buying public, when in fact we have been trading as a fully-fledged software house for almost three years.

Similarly, your aside in brackets ("according to Robico") infers that we are lying about the rave reviews given to our Trilogy. The individual games for the Trilogy were released from 1985 to 1986 and the three-pack mentioned was actually released THIS YEAR to great acclaim, not "a year or two ago".

Both comments could form the basis of libel action and we would appreciate in future that you confine your comments to the game supplied and not to our company's reputation and standing.

It seems obvious from your review that you assumed we ported a 32K BBC game straight over to the CPC. Actually, we have incorporated 10 new locations and added more puzzles, so the game is not a conversion, but a version.

A summary of a review appearing in the latest issue of Computing with the Amstrad CPC is enclosed. As you can see, it paints a completely different picture of the game! Comparing cassette based games with the likes of the Pawn is ridiculous..."

Robert & Mike O'Leary, Llantrisant

It's a pity that you should feel that the only response to a critical review is to lose your temper. Of course I'm not sure that you have lost it, but the points you make in your letter do not seem to me to be entirely rational, and certainly not conducive to opening a debate about your game and my review of it in such a way as to leave room for an open verdict, or even for one in your favour.

First, as someone with Welsh friends, I (and I know they) find your suggestion that the words "Welsh outfit" imply that you are "supplying garbage" outrageous. There is no such implication in the word "outfit", and to attach that meaning to "Welsh" is simply insulting. If you have been treated badly by the English, and have subsequently become over-sensitive, then you deserve an apology. I will readily make that apology on behalf of all reasonable English people for such behaviour (of which I am guiltless except by association), but not on behalf of my entirely reasonable review of your products.

Second, when a company claims to have received "rave reviews" for its products, which the journalist has not seen in person, it is standard practise to append the qualifier "according to such-and-such". The inference that you are lying is in this case drawn only by yourselves.

Thirdly, if you really cared about your products, you would seek to refute my review by drawing attention to their supposed strengths, and not to my supposed weaknesses.

Finally, the subjective opinion of yet another journalist, who happens to favour your product, is of absolutely no relevance to the discussion of my own opinions. Better by far for a few of the readers to write in and tell us what they think of your games. Let's hope some of them do, so that we can get some feedback from the people who really matter...

Lords and Lady Pancott

"...My present total for phone calls received through the Lords and Ladies column is 2312 (including another two from Australia last month) and 126 letters, so I should reach 2500 before November 6th, the day when I will celebrate two years of doing the helpline.

People also ask about all sorts of things that are not on the list, where to buy software, loading problems, clubs, magazines, and I even had a cheeky caller who, knowing that I have all the issues of AA, wanted my help in the Birthday Competition! I quite often get asked about games that I haven't done, but as I have plenty of contacts in the adventure world, I can usually come up with someone able to help.

The only mutterings of discontent (about your column) that I have heard are from people who are not interested in programming and think that the space could be better used. I realise that you must get asked for it or you wouldn't do it, and that you have to try to please everyone. However, if you are planning long instalments and listings you may well receive a few direct comments on the subject - but no doubt you are used to that."

Mrs Joan Pancott, Weymouth

It's always good to hear from the old guard, Joan, and I'm delighted with the response you're getting on the helpline. There's no doubt that the Lords and Ladies column has brought a lot of people together. With regard to the programming, I hope that once the next month's issue is out of the way (which has the second of part of the first listing in it), we will be able to keep everyone happy by publishing regular short routine instalments that keep the coders busy and at the same time do not rob us of too much space.

Thanks...

"...for reviewing my game "The Last Believer". I'm glad you seemed to like it. However, I wonder whether the review suffered by your interpreting the price as £4.99 on tape? In fact, the game costs just £2.99 on tape and £4.99 on disk and as such, I think you'll agree, offers very good value for money when compared with other budget adventures."

Paul Lucas, Coventry

A drop in price is always welcome, Paul, and I'm glad to be able to put the record straight by publishing your letter.

Old Scores

"...In the August 86 issue of AA you reviewed OLD SCORES from Global Software. I have since tried hard to get hold of this adventure through Danish software houses, as well as some English sources, e.g. Adventure Probe.

So far I have had no luck and I understand that Global Software is not operating any more. As you have had the adventure in your possession for the review I wonder if you by any chance should know of any place or anyone who would be willing to let me purchase this game.

Besides using my 6128 for some serious work, the adventure games are my favourite relaxation when I sit down in front of the screen. My reactions are too slow for the shoot-em-ups (I am 66) but the old brain works alright."

Leif Christensen

Leif, you must be one of the Pilg's eldest readers and I am honoured that you should have taken the trouble to write.

Sensible pricing...

"...the CPC prices of Countdown to Doom, Philosopher's Quest, Acheton, and Kingdom of Hamil, are now rescued to £9.95 from £17.50..."

Brian Kerslake, Topologika, PO Box 39, Stilton, Peterborough, PE7 3RL

Good move Brian. That certainly removes the price problem...How about sending me a copy of Acheton to review?

Lords and Ladies of Adventure

Adventure Quest, Apache Gold, Arnold Goes to Somewhere Else, Boggit, Bored of the Rings, Brawn Free, Castle Blackstar, Castle of Skull Lord, Classic Adventure, Colossal Adventure,Crystal Theft, Dodgy Geezers, Dracula, Dugeon Adventure, Dugeons, A. A 'n' Everythin, Emerald Isle, Erik the Viking, Escape from Khoshima, Espionage Island, Fantasia Diamond, Forest at Worlds End, Heroes of Karn, Hobbit, Imagination, Inca Curse, Jewels of Babylon, Kentilla, Lords of Time, Message from Andromeda, Mindshadow, Mordon's Quest, Necris Dome, Never Ending Story, Price of Magik, Project Volcano, Qor, Questprobe, Red Moon, Return to Eden, Seabase Delta, Seas of Blood, Smuggler's Cove, Snowball, Souls of Darkon, Spytrek, Subsunk, The Trial of Arnold Blackwood, Vera Cruz Affair, Very Big Cave Adventure, Warlord, Wise and Fool of Blackwood, Worm in Paradise.

Joan Pancott, Tel 0305 784155 - Any day - Noon to 10 pm 78 Radipole Lane, Weymouth, Dorset DT4 9RS.

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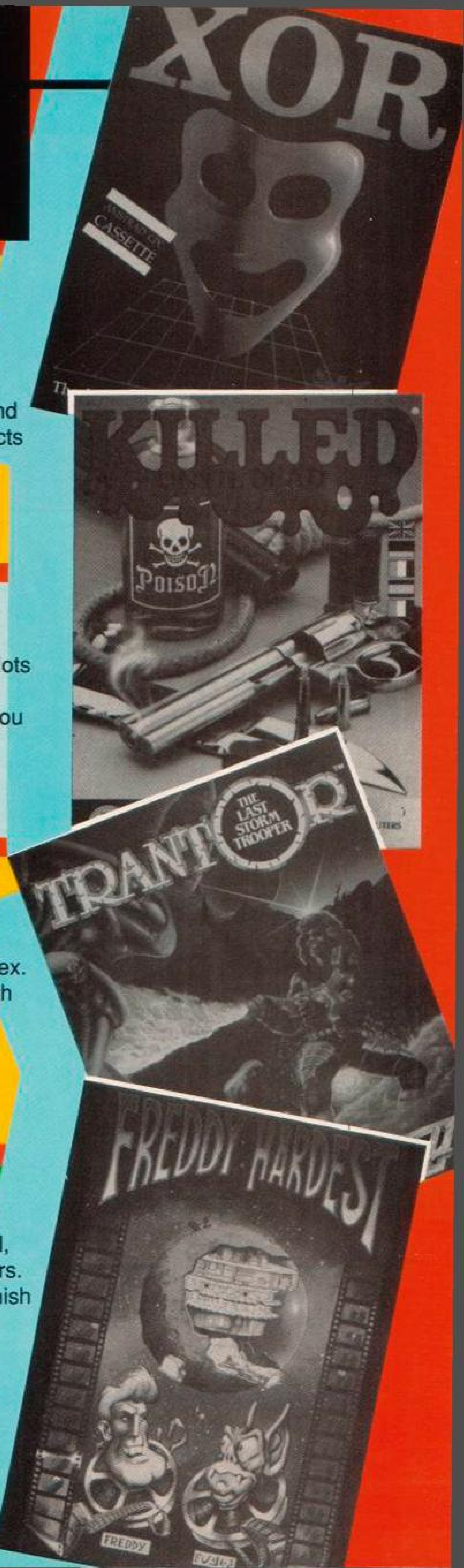
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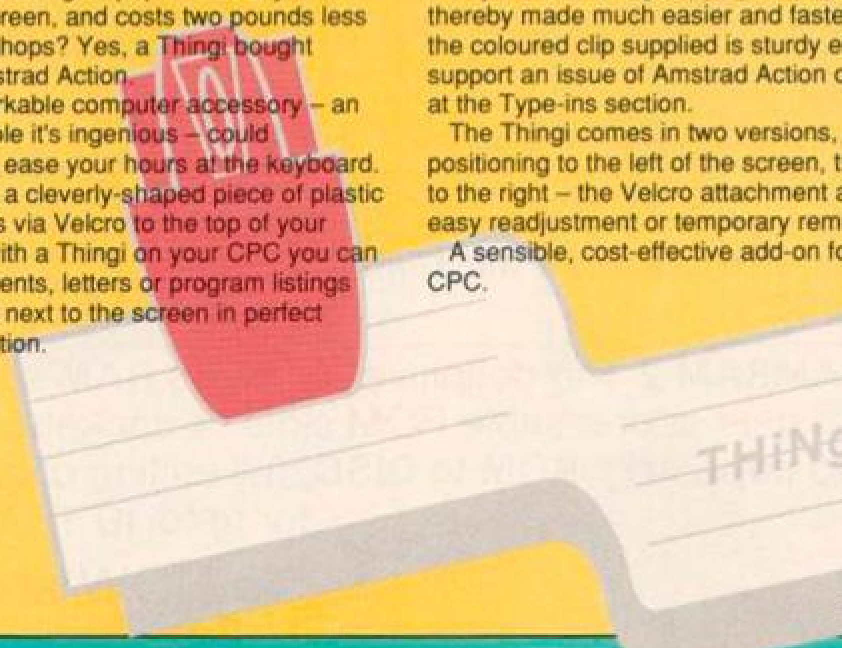
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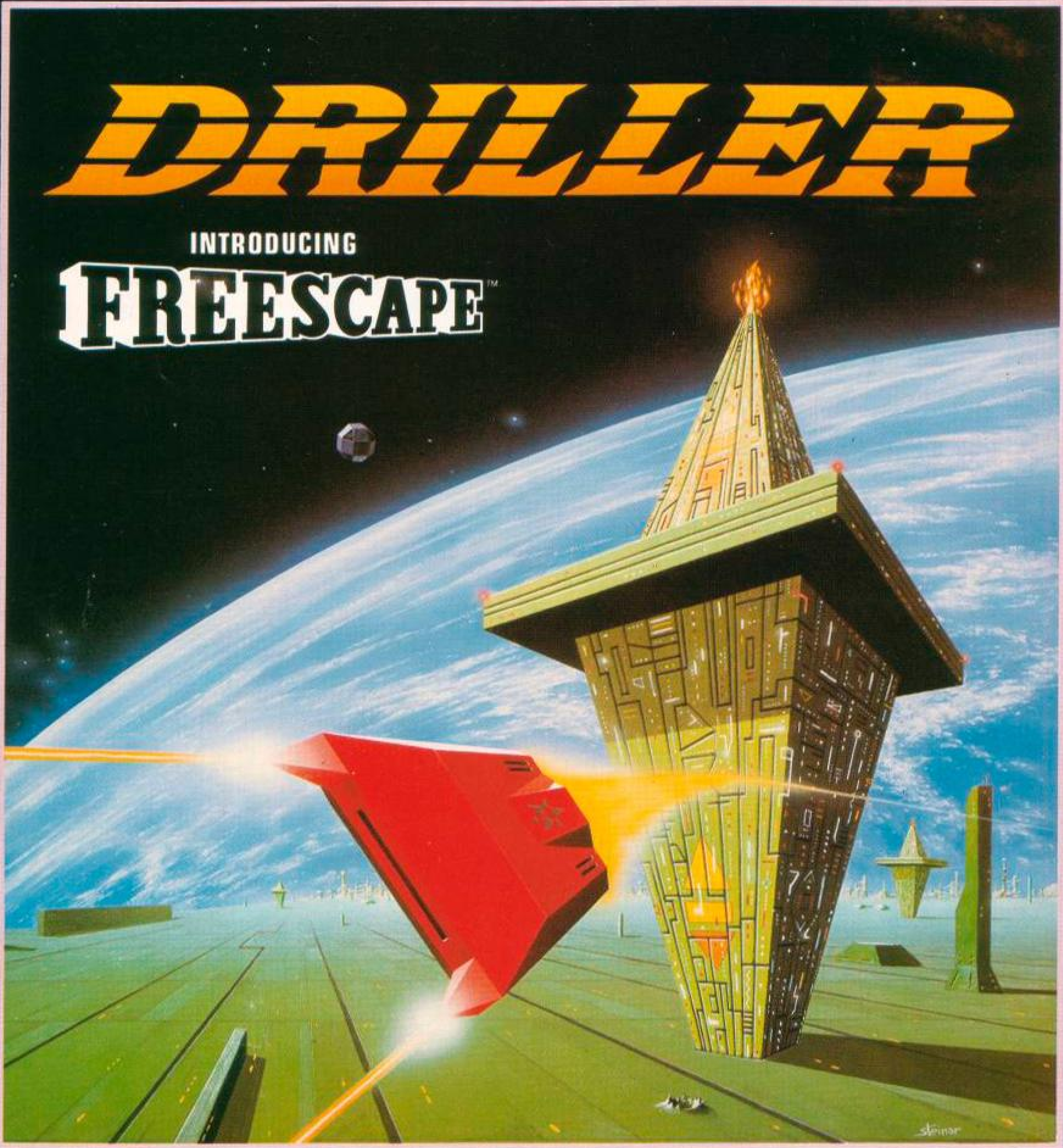
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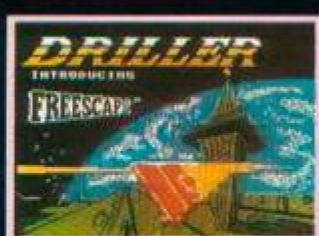
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